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E. H. DuVal

1999

Catalog: #002 - 003

Journal: 5 June – 19 July

E. H. DuVal

1999

Catalog: #002 - 003

Journal: 5 June – 19 July

Emily DuVal
1999

CATALOG

001 On sidewalk W. of Mulford Hall, UC Berkeley campus, Alameda Co., Calif. ♂ Dendroica townsendi
found dead on sidewalk in fall 1998 -
no additional data.

Proctor Terrace School, Santa Rosa, Sonoma County, California

10 January 1999

0002 ♀ Turdus migratorius Adult skull, no fat. ^{ovary} inactive.
Tissue saved. no molt. wt. 75.0 g

Found dead, apparently of nitrite poisoning,
along with >100 robins and a few cedar
waxwings. Received from Santa Rosa Humane
Society & Bird Rescue Center (Rec'd Feb. 11, 1999)

~~0003~~ ~~University of California, Berkeley, Alameda~~

Big Creek, Hastings Reservation, Monterey Co., Calif.

4 May 1999

0003 ♀ Peromyscus maniculatus 20g imperf., 3 uterine enlargements
~~179~~ 179 - 79 - 19 - 18

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Journal

San Jose to Wilson Botanical Garden, Costa Rica

5 June 1999

Bus to the Wilson Botanical Gardens / Las Cruces Biological Station, courtesy of OET/OTS. It was going anyway, so I had a free ride. My field notes from Monteverde and my poncho are officially lost - perhaps the notes were accidentally packed with Rob Clay's luggage? Las Cruces is gorgeous. An undergrad course based out of Duke is here, and one of the professors has ties with Mercedes Foster (same study area, etc.) and offered to answer any last-minute Peru questions if I go. His info:

Donald Brightsmith

116 Stedwick Pl.

Durham, NC 27712 USA

(919) 471-0464

email: DSB4 @ DUKE.EDU

6 June 1999

Met Deedra McClearn and company (David, Victor, & _____) at breakfast, and was offered a ride to Las Alturas. Victor accompanied me to San Vito to buy groceries and a machete before the trip.

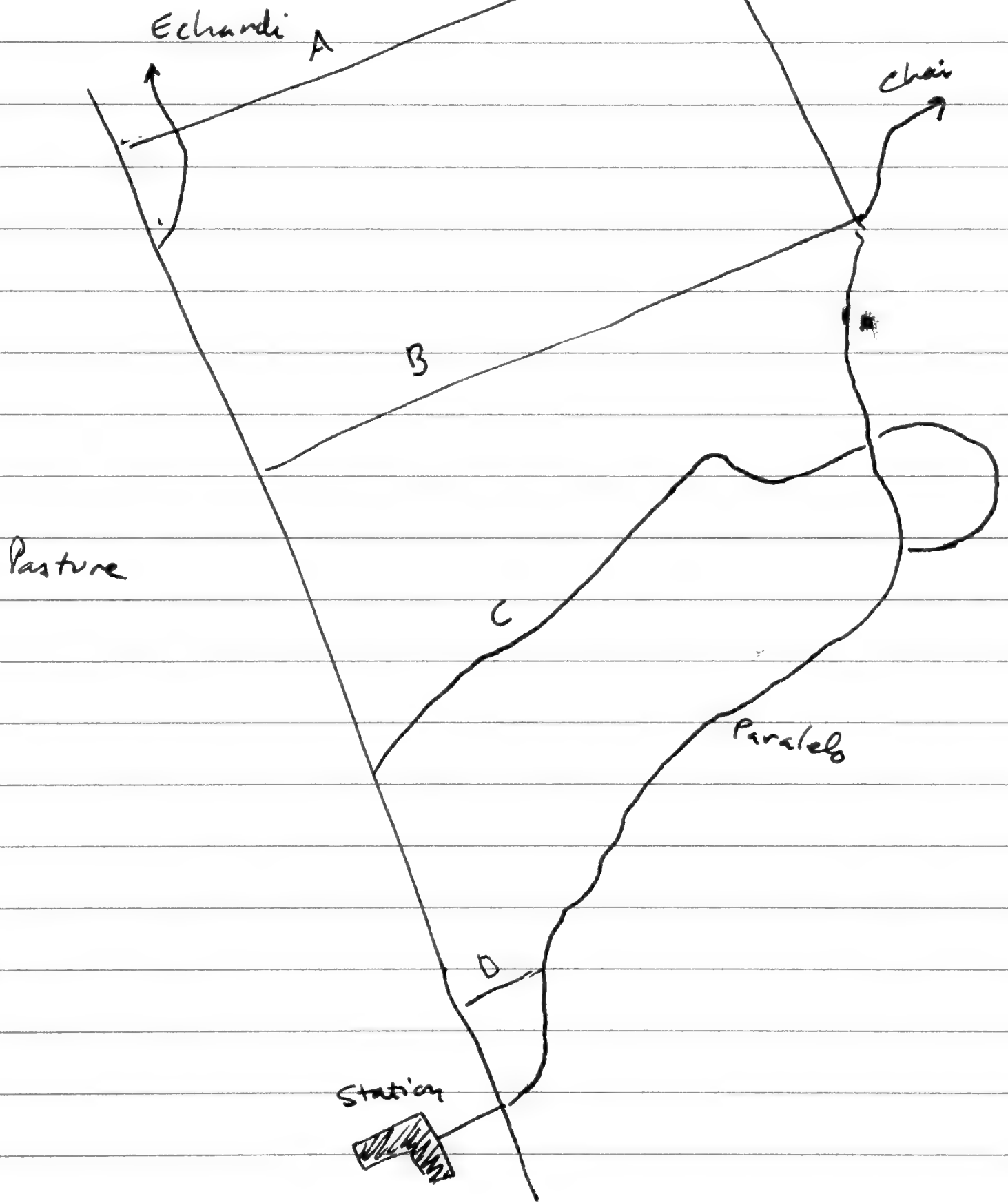
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Las Alturas, Costa Rica

Research Station Map for

Las Alturas:



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Journal

Las Alturas, Costa Rica

June 1999

Set nets in the forest. - NO CAPTURES
11.12 net hours, calculating 1 net
hour as 12m of net open for 1 hour.
Most of my nets are < 12m,
unfortunately!

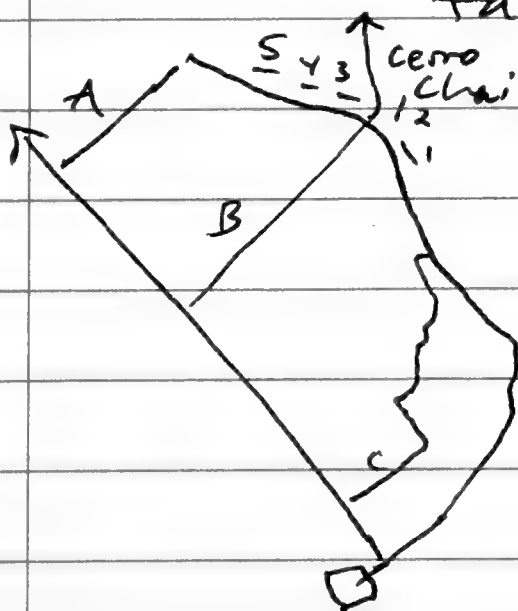
site: Las Alturas, Costa Rica

Temp: 62°F

Weather: Clear and Sunny in the morning
Cloudy in late morning

Habitat: Primary (?) rainforest, ~1400m

Notes: C. lanceolata is listed as "rare" for this area on the Las Alturas bird list. Catherine Lindell has captured 3 one farm over, toward the Panamanian border, where there is a coffee farm & tourist resort. Her captures were on a ridge near the resort, surrounded by pasture & farm land.



<u>Times</u>		<u>net</u>
opened 1 - 7:30 am	closed 11:00	6m
2 - 7:35	11:00	9m
3. - 7:40	11:30	6m
4. - 8:00	11:30	12m
5 - 8:40	11:30	6m

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Journal

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(Mich. State U)

Las Alturas, Costa Rica

Lindell

June 1999

Monitored nets with Catherine ~~Linberg~~ and her research crew in the Las Alturas coffee fields, to get a better idea of the birds here and to practice removing birds from the nets. Nets were placed along a stream and up side paths into the coffee fields.

Note: Look up the Handbook of Field Methods for Monitoring Landbirds, published by Pacific SW Research Station; P.O. Box 245; Berkeley, CA 94701-0245 phone (510) 559-6300. May 1973

Ralph, G.J.; Geupel, G.R.; Pyle, P.; Martin, T.E., DeSante D.F.

This booklet includes addresses of equipment suppliers, mist net instructions, and info on molt, skulking, etc.

Codes for skulking, as they suggest:

N or O - no white spots showing; just 1 thin bone layer covering the brain

T or 1 - Trace of pneumatization at very back of skull; an opaque, grey crescent or a small Δ area. 1-5% pneumatized

L or 2 - $< \frac{1}{3}$ pneumatized, but some obvious

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Las Alturas, Costa Rica

8 June

H or 3 - $\frac{1}{2}$ skull pneumatized. $\frac{1}{3} - \frac{2}{3}$ complete

Most of rear is typically complete, as well as part of front, extending back to the eyes.

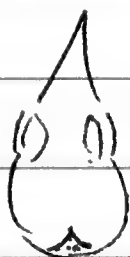
G or 4 - $> \frac{2}{3}$ pneumatized, but $< 95\%$ complete

A or 5 - Almost complete 95-99%.

Typ. dull pinkish area, or "windows"

F or 6 - fully complete pneumatization

U - unknown; examined skull, but unable to det. pneumatization.



→ Different skull pneumatization pattern.

Brood patch codes:

N or 0

None present - breast more or less feathered. In Hummingbirds & young birds, breast is normally unfeathered

S or 1

A loss of breast & some abdomen feathers, but most of the area is still rather smooth & dark red.

V or 2

Vascularized - Abdominal skin thickened w/ ↑ fluid & vascularization. This is the peak of incubation

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Las Alturas, Costa Rica

8 June

W or 3 - Wrinkled - Abdomen skin
thinning, wrinkly, scaly.

M or 4 - molting - new pin feathers
are coming in over the abdomen.
Nesting is usually completely over.

Molt: in wings only

S if symmetrical & normal

A if adventitious (accidental)

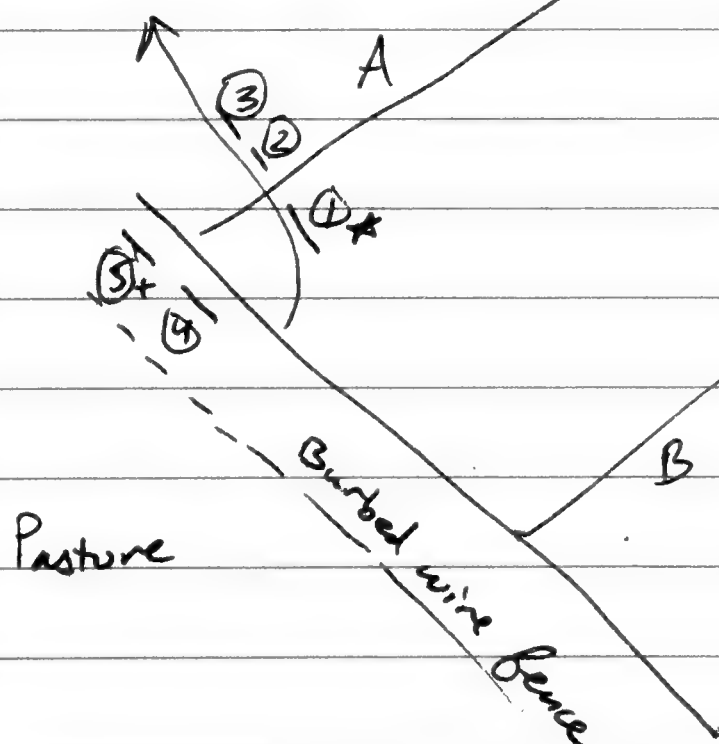
N if none

9 June 1999

Set⁵ nets along the edge of the forest
and again caught nothing. It was

rainy this morning,
so I got a late
start, and more rain
at 11:00 cut
the day short.

* = 12m
+ = 9m



Site: Las Alturas, Costa Rica

Temp: 62°F

Weather: Light rain until 7am, partially
cloudy after.

Habitat: 1° rainforest edge, next to open cattle
pasture

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Journal

Las Alturas, Costa Rica

9 June cont

Total net hours: 12 h 16 min

1	Open: 7:00 am	closed: 11:00	12 m
2	7:00	11:00	6 m
3	7:45	11:00	6 m
4	7:00	11:00	6 m
5	7:30	11:00	9 m

Notes: Nightjar flushed out of undergrowth. Perhaps the common parakeet? (Nyctidromus albicollis)

A troupe of white-faced capuchin monkeys (± 7 indiv) were in the trees near the nets and complained bitterly about my presence. I never realized that the bar-shaking display that I've seen in zoos serves the purpose of breaking off branches to fall on a predator in the wild. I had many branches sent my way...

Returned to Las Cruces in the afternoon

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Journal

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Costa Rica

Las Cruces to David, Panama

June 1999

Left Las Cruces and crossed the Panamanian border to David.

Expenses: \$124 for Las Alturas + Las Cruces (\$20, not \$8 for Las Alturas)

\$800 taxi

\$1500 machete sheath + strap

\$495 buses in CR

\$200 taxi

\$5 tourist card

\$3 taxi → David

\$8 hotel in David

(Pension Clark - fee!)

Will need to extend visa in David, as it currently expires after 30 days.

June 1999

Bus from David → Horcancitos,

taxi from Horcancitos → Boca Chica,

water taxi from B.C. → Isl. Boca Brava.

Expenses: \$1.50 bus

\$10 taxi

\$2 beers H₂O taxi (John)

\$2.50 passport photos

\$1.50 leatherman sheath

\$5.00 dinner + breakfast

\$1.00 taxi in David

\$8/night lodging @ IBB

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Journal

8

Isla Boca Brava, Chiriquí Prov., Panamá

[11 June cont]

site: Isla Boca Brava

weather: clear all day, some clouds, no rain

Notes: It is difficult to explain to Frank Köhler the magnitude of what I'd like to do here. I'm trying not to blurt it all out at once or start plotting the housing for field assistants without letting them get to know me a bit, first.

The island is beautiful, and teeming with lance-tailed manakins. Frank initially said that he had no *C. lanceolata* here, but his wife disagreed.

On a quick walk around part of the island, I saw no fewer than 10 manakins.

(much better than in Monteverde, where they seem to have gotten people-shy. I hope netting them doesn't result in the same shyness here. I saw ~4 definitive males, 1 immature male, and 5-7 females/juveniles. I also heard many different lebs and observed

DeVal,

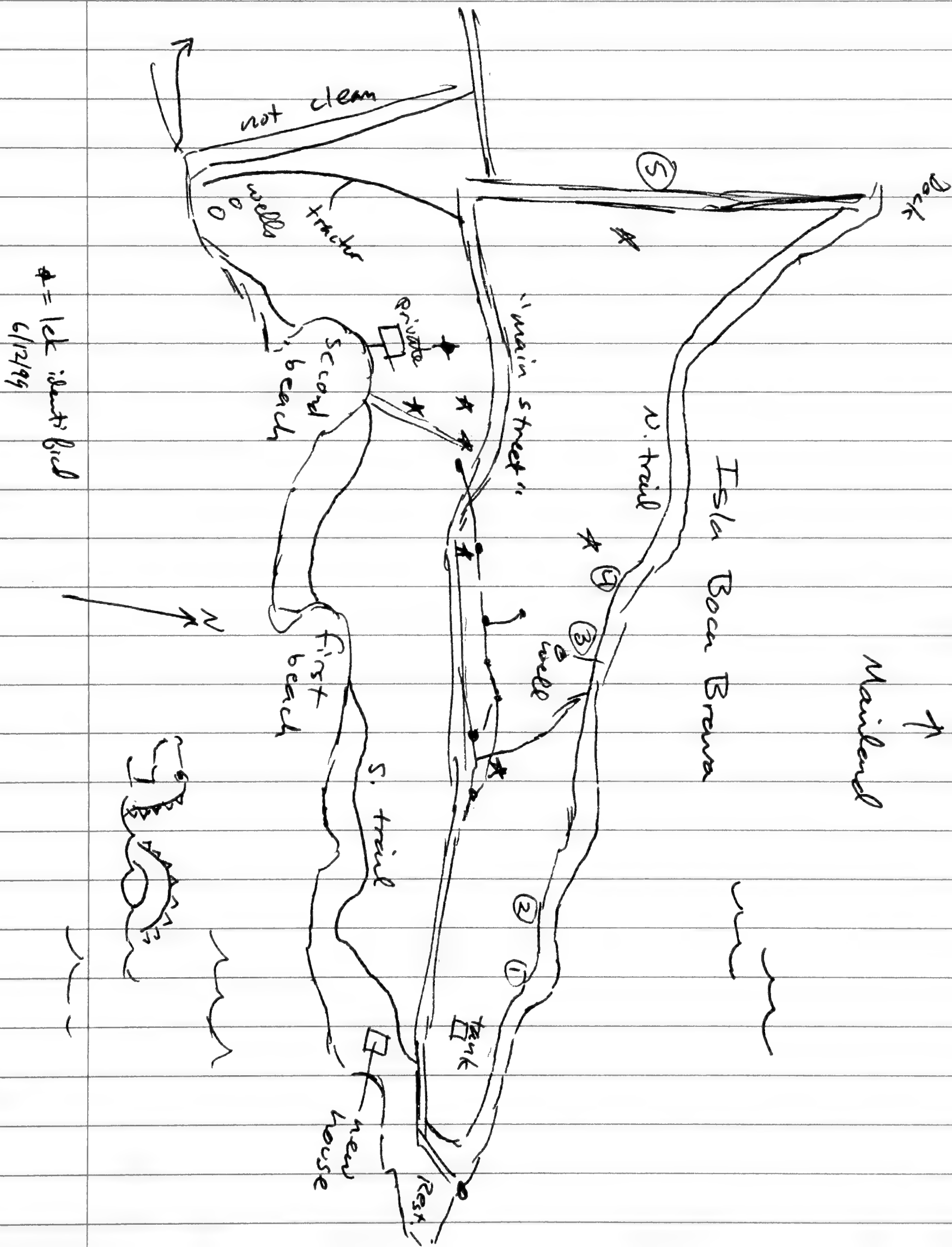
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Journal

11 Jun cont

Isla Boca Brava, Chiriquí Prov., Panamá
"dancing" at one site.



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Journal

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Isla Boca Brava, Chiriquí Prov., Panamá

- can't ① branch across trail from line tree; singing to the ~~left~~^{South} of trail here (2 ♂)
- ② possible lek to South of trail - Dip in the trail here, with a clear view of the mainland
- ③ Saw many females and observed 2 definitive males dancing for 1 female (2 ♀²⁹ perch for a short while). Notes: The "toledo" equivalent is much less regular than that of the long-tailed manakin and always ends with a high-pitched "pip!" The dancing song has a rattle to it not heard in the long-tailed song. I also observed 2 males flying back & forth between two perches (& calling at each perch - the "pip" noises I don't remember...). The females were directly on the display perch. The longer-visiting ♀ was in a head-down posture (soliciting?) I had a clear view but tried getting closer & the males moved to a nearby (but not visible) site. As I listened, they moved again.

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1999

Journal

Isla Boca Brava, Chiriquí Prov. Panamá

Jun cont

It was all in about the same 30m circle...

④ berry tree in fruit, with several manakins feeding (1 ♀, 1 ♂(DM), at least). A good place to set my nets...

⑤ bridge across a creek at this point; 2 males clearly visible to the west of the bridge, displaying (though they stopped when I approached). Another lek could be heard to the east of the site

* other sites where a lek was heard.

Assuming 2 DM per lek, this implies that there are at least 22 males displaying in the area. Not bad...

Other sightings: barred antshrike pair, brown pelicans + ~5 Magnificent Frigatebirds from the restaurant.
~4 monkeys:

Data to record for captures:

Bands

Species

Sex

Age? (for ^{Plumage} LTM; DM, RC, PDM, FP)

Net/trammel

Time

[Blood Sample? & #
Hormone sample? & #

Weight

[Tarsus

Nare to tip

Exposed Culmen

Skull to tip

Cap L x W

[Wing Chord

Tail (betw. rectrices

[Tail extension

[Ossification

Brood patch?

Cloacal protuberance?

Molt

[Fat

Notes:

(make data sheets)

DuVal,
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Journal

11

June 1999

Site: Isla Boca Brava, N. trail
East end

Temperature:

Weather: Clear and hot in the morning. Cloudy in the afternoon followed by a huge rainstorm right after I closed the nets.

Habitat: ? Secondary growth, larger trees w/ plenty of undergrowth. Relatively open where nets were placed in the forest.

Notes: Netted until 11:00 am, then again for ~ 20 minutes at 3:00 pm (stopped by rain).

Net hours: 12 h. total

Further notes: 4 lance-tailed manakins captured, 1 rufous-tailed hummingbird
Bands recorded as L Top Bottom/
R top bottom, with th. alum.
#1'd band always on the right leg.

trammels



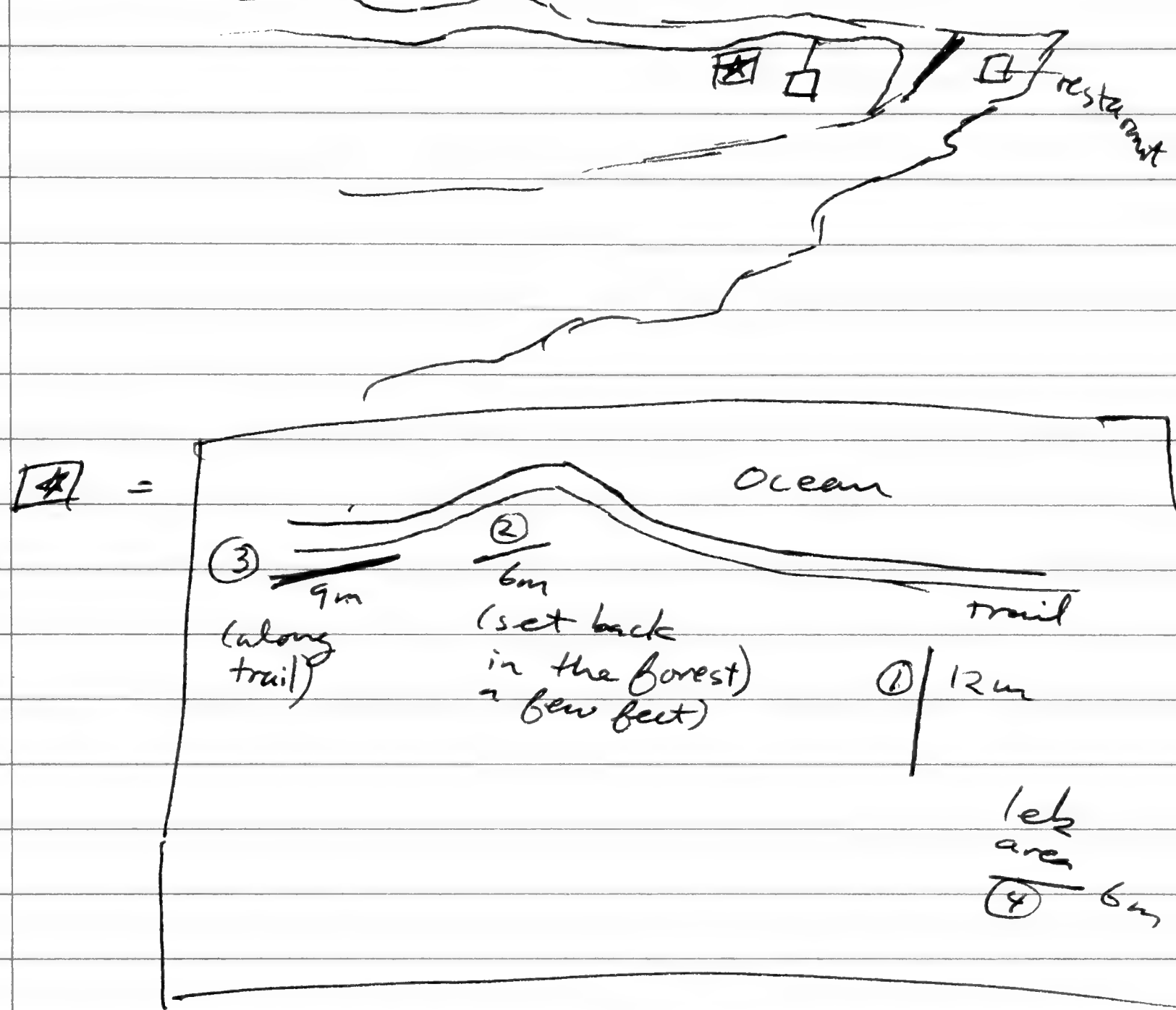
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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

June cont



	nets opened	closed	opened	closed
①	7:00am	11:00	3:00	3:40
②	7:00	11:00		
③	7:00	11:00	3:00	3:30
④	7:45	11:00	3:00	3:40

net hours: 4 + 40m + 2h + 2hr + 3h + 20m
= 12 hr.

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Journal - net records

12 June 1999

Species	Lance-tailed manakin	Rufous-tailed	LTM
	<i>C. lanceolata</i>	hummingbird	<i>C. lanceolata</i>
bands	BO / Bal	—	GY / Gal
minimum #	001	—	002
sex	F	F?	F
Age	Adult	Adult	Adult (?)
Net / trammel	1 (2)	3 (3)	1 (2)
Time	7:00	8:00	8:45
Wt in bag (g)	31		27.0
Bird weight	21		17.5
Blood #	LTM99-001		LTM99-002
Hormone #	—		—
Parasite smear	—		—
Tarsus (mm)	18.73		19.76
Wing to tip (mm)	6.26	20.79	6.27
Exposed culmen	—		8.35
Bill to tip	—		12.48
Tip (L x W, ♂ only)	—		—
Wing chord	74	56	67
Tail main	—		32
Tail ext (mm)	13.5		11.44
Ossification _{p. 4-5}	complete		complete
BP (0-4)	2 (vasc + H ₂ O)		1
CP (1-3)	2		1
Molt	—		—
Fat	—		—
Notes	a few head- feathers had bred tips		no red

DeVal
EH

Journal - net records

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12 June 1999 continued

LTM	LTM
<i>C. lanceolata</i>	<i>C. lanceolata</i>
RY/Ral	BY/Ral
003	004
M	F
adult (DM)	adult
4(2)	1(2)
9:15	3:20 pm
28.5	30.5
19	21
LTM99-003	LTM99-004
—	—
—	—
20.82	19.77
6.23	6.24
8.31	9.38
10.42	12.49
12.66 x 11.46	—
74	69
32	31
12.47	10.4
complete	complete
0	1
2	2
—	—
—	—
white (parasites? odd feathers? around eyes. Took photo)	immediately flew into nets when opened, as with #001.

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1999

Journal-net records

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Severin

June 1999

Site: Isla Boca Brava, N, trail,
East end

Temperature: (same)

Weather: Clear morning, rain ~ 2pm

Habitat: same as 12 June

Total net hrs: 17.9h. ~~net 2~~ (3)

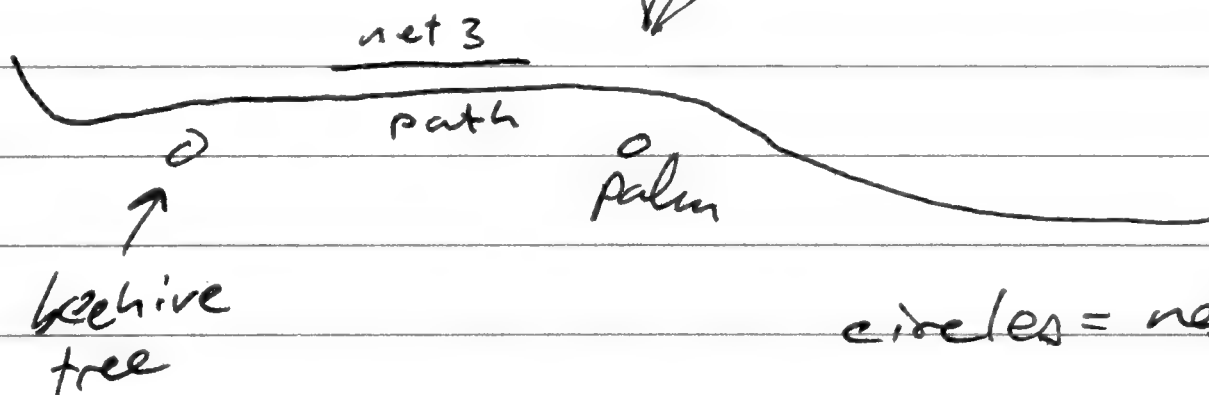
Notes:

/net 4

heliconia
(1)

net 1 / (3)

sawgrass
VV



nets open ~7:00 closed 12:30

note: previous times are 1 hour fast: I
didn't change w/ the time zone!

Found 3 nests in the net area

(1) - finished, no eggs (old?) some debris!
Made of small, supple sticks (grass stems?)
unlined, leaf hangs below ~3.5 ft
off ground

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1999

Journal

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Isla Boca Brava, Chiriquí Prov., Panamá

13 Jun, cont

(2) = unfinished, rear area
w/ nets farthest in.
Maybe not disturbed much?
Large gap in weaving right now.

(3) = ~ 6 feet up, in a sapling
I had bent over to clear
space for the net. Unfinished
made of bark strips + spiderwebs.

I found all of these within
 $\frac{1}{2}$ hour - perhaps I've
magically learned how to
nest-search?

D. Val,

E H

1999

13 June 1999

Journal - net records

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Species	<u>C. lanceolata</u>	Yellow-green vireo <u>Vireo f. flavoviridis</u>	<u>C. lanceolata</u>
Bands	OG/Yal		YP/Ral
Alum #	005		006
Sex	F	F - bp	M
Age	Adult		pre-definitive 2-4 yr? plumage
Net/tram.	3 (4)	3 (2)	2 (2)
Time	7:00 am		10:10 am
Wt in bag	41.5		38.5
Bird wt.	22.5		19.0
Blood #	LTM99-005		LTM99-006
Hormone #	—		—
Parasite sm?	—		—
Tarsus (mm)	19.75		19.77
are to tip (mm)	6.26		6.23
Exposed Culmen	8.35		8.30
ull to tip	12.5		12.50
op (LxW)	—		20.83 x 11.45
ing Chord	67.5		71
tail main	34		34
tail ext	12.49		15.62
Dissif.	Compl.		Compl?
BP (0-4)	3	1	0 some
CP (1-3)	1		not recorded
Molt	—		pin feathers in cap, some
at	tr		not recorded
Notes	white near eyes + 1 tick, R eye	had to cut out of net	

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Journal - net records

C. lanceolata

YR / Gal

007

F

Adult

1 (2)

10:45

40

20.5

LT M99-007

—

—

19.75

6.24

8.35

11:44

—

68.7

33

10.43

Comp

3

1

—

pit full but
not overflowing
not quite level.

Note: I don't
trust my skull
estimates; a clearly
juv. bird on
14 June ~~seemed to~~
was very difficult to
skull.

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Journal

19

June 1999

4 June 1999

Site: Isla Boca Brava

N. trail, cerca 2nd landing

Temp: hot!

Weather: sunny, looked like rain when I stopped.

Habitat: similar w/ others; heard lethe.

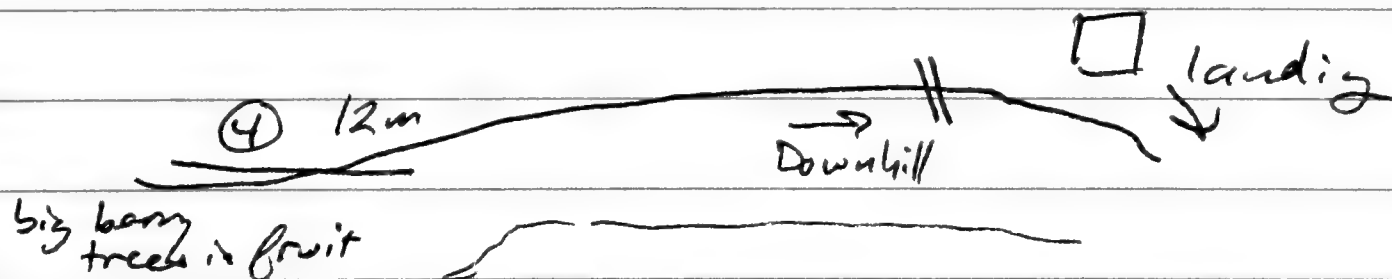
Net hrs: opened ~ 11:30 am, closed ~ 2:30 pm; 7.5 hours total

Notes: late because of phone calls - had to travel to Boca Chica.

① heliconius
6m

② / 6m

6m / ③



Also captured: Slate-headed tody flycatcher
(*Todirostrum sylvia schistaceiceps*)
6.5g; tarsus 17.7mm; nare to tip 6.25
yellow wing bars, & feather edges, eye ring?

DuVal,
E.H.

Journal - net records

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14 June 1979

species	<u>C. lanceolata</u>	<u>C. lanceolata</u> BVB	<u>C. lanceolata</u> RBV	yellow-green vireo
Bands	Y4/Bal	BG/Bal	RB/Gal	
Hummer #	008	009	010	
Sex	M	F	FP	
Age	Adult ^(DM)	Adult	Juv ^{thib} - yr	
Net/tr.	1 (2)	4 (2)	4 (2)	
Time	12:45 pm	1:20 pm	2:15 1:20 pm	
Wt in bag	28	29.5	17.5	
Bird wt.	18.5	19.5	17.5	17.5 18.0
Blood #	LTM 79-008	LTM 79-009	LTM 99-010	
Horn. #	—	—	—	
Parasite sm?	—	—	—	
Tarsus (mm)	20.82	18.71	19.75	
Alare to tip	6.24	6.26	6.27	
Exposed Culmen	9.38	9.37	10.42	
Bill to tip	11.44	12.49	12.48	
Wing (L x W)	16.65 x 9.38	—	—	
Wing Chord	66.63	70	67.5	
Tail main	34	32	33	
Tail ext.	12.49	9.39	7.27	
Classification	comple?	comple	?	
BP (0-4)	0	2.5	3? A bit wrinkled	
CP (1-3)	2	2-3	2	
Molt	eye?	—	pin on eye & neck	
Feet	—	full, not over	trace	
Notes	a little white around eye - parasite or molt?		yellow tips to feathers on back - tail worn	marked outer rectrices all rectrices marked

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1999

Journal

18 June 1999

~~Isle~~ Bo Panama City, Panamá

NOTES from talks w/ N. Smith @ STRI

18 Jun

Neal Volunteered to look over my research proposal + "tell me what's wrong with it."

Nests: over streams

Mangrove - abyssinian (blk. mangrove)
ecotonal situation

Punta de (Reste)

mangroves + islands - marginal
parrots in mangroves

Feb - March breeding?

small lek up the hill in Ancón
displaying in the canopy

Rachael Levin - Panama

wrens "w/ Wingfield"

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1999

Journal

3 June 1999

Site: Isla Boca Brava

N. trail, 1st site again

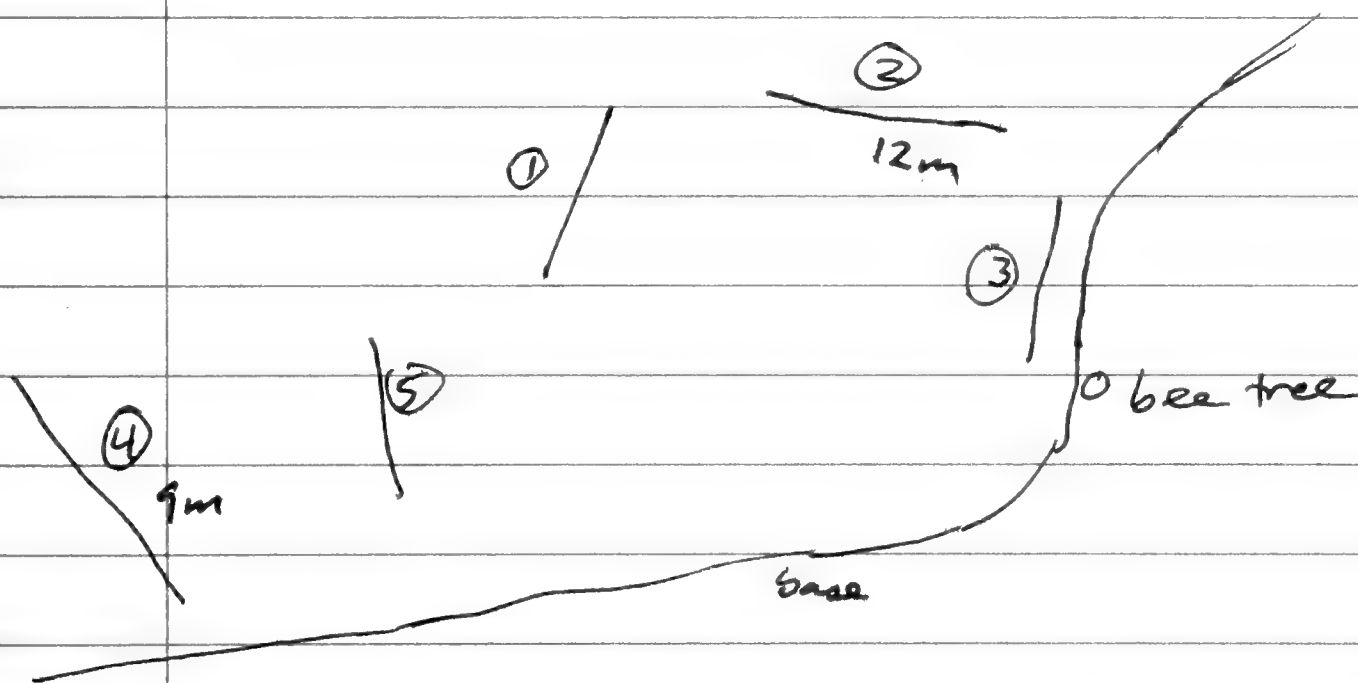
Temp: ~ 85° F

Weather: overcast
Sunny, hot

Habitat: see 1st site, 12 June 1999

Net hrs: 15 hours 3 minutes

Notes: 1st day netting with Clint
4 LTMs, (2 Juv. males)



net	hours
1 7:30 — 12:30	2.5 30m
2 7:30 — 12:30	5
3 7:45 — 12:30	2.3 22m
4 8:15 — 12:30	3 11m
5 10:30 — 12:30	2 2m
	1
	<hr/> 15 h 3min

4:15
4:15

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1999

Journal - net records

Species	Chiroxiphia lanceolata	Chiroxiphia lanceolata	Chiroxiphia lanceolata	Chiroxiphia lanceolata
bands	YR/Yal	YG/Yal	BB/Gal	YY/Yal
Minimum #	011	012	013	014
Sex	F	M	M?	F
Age	Ad (bp)	Juv (RC)	Juv (spot on head)	Ad?
Net (trammel)	1 (2)	4 (2)	3 (2)	4 (2)
Time	8:20	8:35	9:00	11:40
Ht. in bag	40.5	35.6	28.4	46.5 ^{24.5}
Bird Wt.	20.0	19.1	18.2	22.0
Blood #	—	LTM99-012	LTM99-013	LTM99-014
Hormone #	—	—	18.745	—
Parasite sm?	—	—	99 LTM013	99 LTM014
Tarsus (mm)	—	18.73	18.745	18.72
Nare to tip	—	6.235	6.25	6.24
Exposed Culmen	—	8.345	8.33	8.33
Skull to tip	—	11.43	11.46	11.47
Gape (LxW)	—	7.3 x 12.5	6.24 x 3.14	—
Wing Chord	—	68.0	69	71
Tail main	—	33.0	33	32
Tail ext.	—	8.35	9.39	8.32
Ossific.	—	maybe?	?	?
BP (0-4)	—	1	0	1
CP (1-3)	—	1	1	2
Molt	—	molting 6 blk on wings lots; head, body, wings in pin trace	body molt head molt	none
Fat	—	—	0	tr
Notes	released w/o measurements or blood b/c she looked stressed. Cut out of net	—	—	—

DoVal,
E. H.

Journal

23

June 1979

Site: Isla Boca Brava

N. trail, ^{same net site}
same site as yesterday

Temp: 81-85°F

Weather: sunny, hot

habitat: same as yesterday

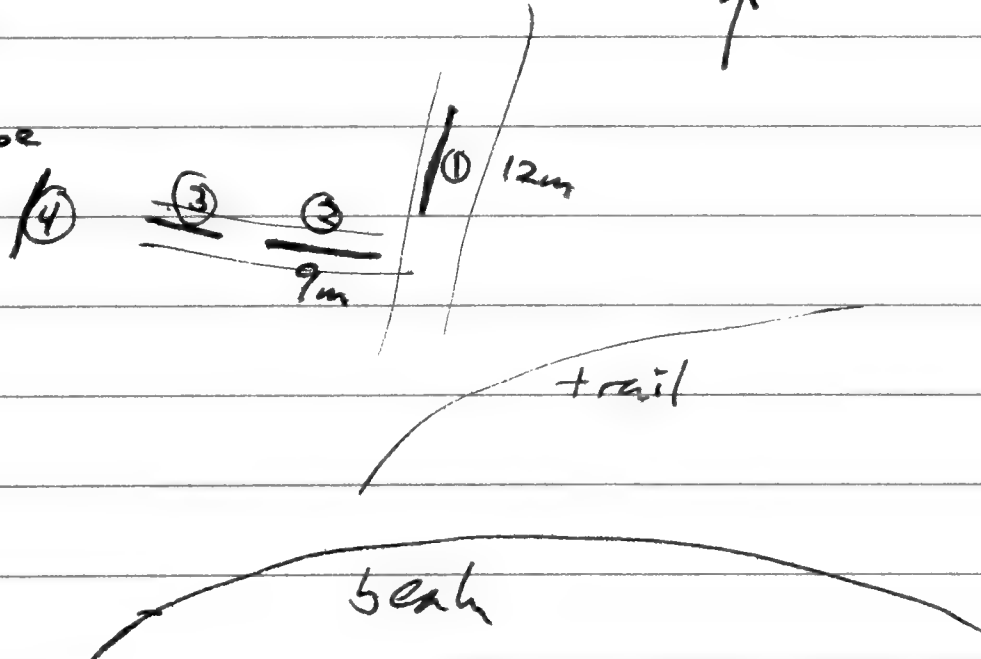
Net hrs: 17 h 15 min site 1 + 1 hr site 2

Notes: switched nets to 1st beach site @ 4:00 pm

net			hrs	min
1	7:00 - 12:30	2	45	
2	7:00 - 12:30	5	30	
3	7:00 - 12:30	2	45	
4	7:00 - 12:00	2	30	
5	7:00 - 12:00	1	15	
		2	30	
		17	15	5 3/4

1st Beach Site:

to
Frank's
house-to-be



other site, same net #'s & locations.

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E.H.
1999

24 June 1999
1st site: bee tree

Journal - net records

Species	Rufous- cap tailed hummingbird	Chiroxiphia lanceolata RB/Yal	Chiroxiphia lanceolata YG/Ral	Chiroxiphia lanceolata RR/Bal
Ind				
l #		015	016	017
Sex		F?	M	M
Age		?	Adult (DM)	Adult (young DM)
Net (tr.)	3 (3)	3 ^{dbl train} (1/4)	4 (2)	4 (1)
Time	8:20	9:20	10:00	10:50
rd + bag			38.5	43.0
Bird wt		(1 only)	17.8	19.5
blood #		LTM99-015	LTM99-016	LTM99-017
Horn #			LTM99-016-H	LTM99-017-H
Parasite #			—	99 LTM017
Tarsus			19.77	19.77
Nare to tip		6.26	6.245	6.23
Exposed culmen			8.325 12.425	18.35
Cull → tip			12.425	12.47
p (L x W ♂)			18.74 x 12.485	19.75 x 11.435
by chord			72	72
il main			34	33
il ext.			13.545	14.545
ssif.			?	?
red patch			0	0
ocul prot.			2+ 1	2+
Molt			0	cap, wing, shoulder slight green on back
Notes		only 1 blood sample - bird stressed	trace 4 ticks; Alpha? (not + call) "chuck"	trace missy, puff back on left young - just DM plumage just

DeVal,
E.H.
1999

24 June 1999

Journal - net records

Site: First Beach
Net hrs: 1 net hour

Species	Chlorophila lanceolata	Tyrant flycatcher (sp. not det.)	NOTES:
Sex	BP/Y ad		#018 has no tail extension. I need to count
Minimum #	018		rectrices on a normal
Age	M		lance-tailed bird
Weight (g)	Ad. (DM)		to see whether
Wing (mm)	1(4)		his middle 2 are
Wing	5.40		lost or just short.
Wing	38.5		
Wing	17.0		
Band #	LTM 99-018		Clint agrees that
Hormone #	LTM 99-018-H		the white around
Parasite #	19 LTM 018		the eyes of
Tarsus (mm)	19.775		many birds could be
Nare to tip	6.22		parasites or pin feathers.
Exposed culmen	8.31		<u>took pictures.</u>
Bill to tip	11.43		Hormone samples for
Wing (LxW)	17.69 x 11.45		016 + 017 were
Wing Chord	69.5		warm in the thermos
Tail main	34		for about 2-3
Tail ext.	* none		hours, unsure if
Ossif.	?		they're still good.
BP (10-4)	0		the 5 took
CP (1-3)	3		
Molt	missing tail		
Fat	trace		
Notes	10 rectrices middle 2 not extended eye white things		

DuVal,
E.H.
1999

Journal

6 June 1999 Site: Isla Boca Brava, First Beach

Temperature: 81° F

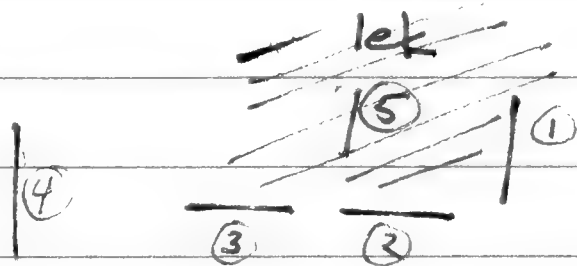
Weather: Overcast to Sunny

Habitat: dry forest, secondary or tertiary growth
cleared areas nearby, known lek in
center of nets.

Net hours: 13 hours

net	1	7-11	12m	4h
2	"	9m	3	
3	"	6	2	
4	"		2	
5	"	↓	2	

Notes: 6 manakins, 1 little hermit,
1 rufous-tailed hummingbird, 1 tyrannidae
(yellow-margined
flycatcher or
olivaceous flatbill?)
Didn't have book



Trail

beach

DuVal,
E.H.
1999

Journal - net records

26 June 1999

species	Chiroxiphia lanceolata	Chiroxiphia lanceolata	Chiroxiphia lanceolata	Chiroxiphia lanceolata
bands	YO/Ral	GO/Gal	BB/Bal	GG/Gal
lum #	019	020	021	022
Sex	M	F? (bp)	F?	?
age	Adult - DM	Ad?	Ad?	Juv?
let (tr)	2(2)	2(2)	2(3)	2(1)
Time	8:10	9:05	9:45	9:50
Bird in bag	35.5	36.	37.5	35.7
Bird wt.	19.0	19.3	18.6	19.3
Blood #	LTM 99-019	LTM 99-020	LTM 99-021 ⁽⁴⁾	LTM 99-022 ⁽⁴⁾
Hormone #	LTM 99-019-H	LTM 99-020-H	—	—
parasite #	99 LTM 019	99 LTM 020 99 LTM 020 B	99 LTM 021	99 LTM 022
Tarsus (mm)	19.77	18.73	19.75	18.71
Wing to tip	6.22	6.24	6.24	6.24
Exposed Cul.	8.32	8.32	8.33	9.375
Wing to tip	not meas.	12.46	12.47	13.51
Cap (L x W)	20.80 x 11.46	13.52 x 7.28	—	—
Wing Chord	69.5	70	71	70
Tail main	33	34	38	43 (!)
Tail ext.	11.46	10.42	11.46	5.22
Quills	—	—	—	—
BP (0-4)	0	3 wrinkly, H ₂ O ready?	3 wrinkled	0 scaly
CP (1-3)	2	1	1	1
Molt	some body	none	not meas	body some head 1
Fat	tr	1 bottom covered	not meas	tr.
notes	left ext. broken	cap - blebs only 2 blood s/l. l.	got away at the end	Wing apparently injured in net - unable to fly more than 1 foot

R wing stiff - tendon
problems? I checked bar net
remaining & flexed wing for a few secs.

"flew" to the base of a
fallen tree & remained
there for ~ 1.5 hours.

Unable to relocate when
we left.

DuVal,
E.H.

1999

26 June, cont

Journal - net records

Species	Chiroxiphia lanceolata	Chiroxiphia lanceolata	Tyrannidae	Phaethornis longuemarcus saturatus	Amazilia t. tracht
Bands	RR/Ral	PY/Pal			
Al #	023	024			
Sex	F?	F?			
Age	Ad.?	Juv? ^{Feathers sparse around eyes}			
Net (tr.)	1 (2)	2 (1)	2	2	2
Time	10:45	10:45			
Bird + bag	42.5	27.0			
Bird wt.	26.0	17.5			
Blood #	LTM99-023	LTM99-023			
Hormone #	—	—			
Parasite #	99LTM ⁰²³ 023	99LTM 024			
Tarsus (mm)	18.73	18.73			
Nare to tip	6.24	6.22			
Exposed culmen	9.35	8.33			
Beak to tip	13.53	12.48			
Gape (L x W)	smidge of red	—			
Wing chord	69	69.5			
Tail main	34	35.5			
Tail ext.	13.51	11.43			
Oss	—	—			
BP (0-4)	0.5 (egg?)	3			
CP (1-3)	1	1			
Molt	none	none			
Fat	tr	1			
Notes	suspect carrying an egg only bottom 1/2 of BP clean of feathers				1

DuVal,
E-H.
1999

Journal

28

27 June 1999

Site: Isla Boca Brava, First Beach

Temp: 81°F

Weather: sunny

habitat see p. 25

same net #'s, but only 1, 2, 3, 5^{open}

Net hrs: 2 3/4 nets/hr 3 hrs open

2:15 pm - 5:15 pm

= 8.25 net hours total

Notes: Clint "rowing" for the first part of the netting, though he appeared right when I caught three birds at once to help with the untangling.

Snake: green mamba?

Uniformly bright green body
black eye stripe

lower head more bright blue/green
tongue bluish; on ground, climbed
trees easily 3-4 feet long.

largest head w/ very skinny neck.

Saw 3 ^{CTM} birds in the cabin area -

at least 1 was singly "pip" notes -
maybe more? All green phase. Clint

reports seeing green-phase birds singing
"toledos." Saw ~3 other DM or PDM at the
first beach site

DuVal,
E.H.
1999

Journal - net records

7 June 1999	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata
Species	new	new RFB	new	new VKB	new	RECAP
Bands	RY/Bal	RG/Bal	BR/Yal	GR/Bal	YB/Yal	BB/Bal
Alum #	025	026	027	028	029	021
Sex	M	?	?	?	?	F
Age	Ad (DM)	Juv	Juv	Juv?	Juv.	Ad.
Net (tr.)	2(4)	1(4)	2(3)	1(3)	5(3)	2?
Time	3:50	3:55	4:50	4:50	4:50	
Bird + Bag	36	45	37.5	35.4	28.75	38.5
Bird wt.	19.5	19.5	19.9	18.5	19.0	?
Blood #	LTM99-025	LTM99-026	LTM99-027	LTM99-028	LTM99-029	
Horn #	LTM99-025-H	—	—	—	—	—
Parasite #	99LTM025	99LTM026	99LTM027	99LTM028	99LTM029	
Tarsus (mm)	19.75	18.72	18.71	19.78	17.70	
Nare to tip	6.23	6.22	6.23	6.24	6.25	
Exp. Cul.	8.31	8.34	8.31	8.32	8.33	
Skull to tip	11.45	11.45	12.47	11.46	11.45	
Cap (LxW)	18.73 x 10.38	—	—	—	—	
Wing Chord	71	70	67	69.5	70	
Tail main	34	35	36	35	33	
Tail ext.	13.51	7.29	9.36	12.5	12.5	
Oss.	—	—	released	—	—	
BP (0-4)	0 ^{scaly}	0	0	1	0-1	wrinkled 3 mostly clear
CP (1-3)	2	1	?	1	1	
Molt	body, primaries	head in pin, new tail, body	40x	not rec.	none	
Foot	2	1	recorded	1	1.5	
Notes		took photo of head				

DuVal,
E.H.
1999

Journal

28 June 1999

Site: Isla Boca Brava, Bridge Site

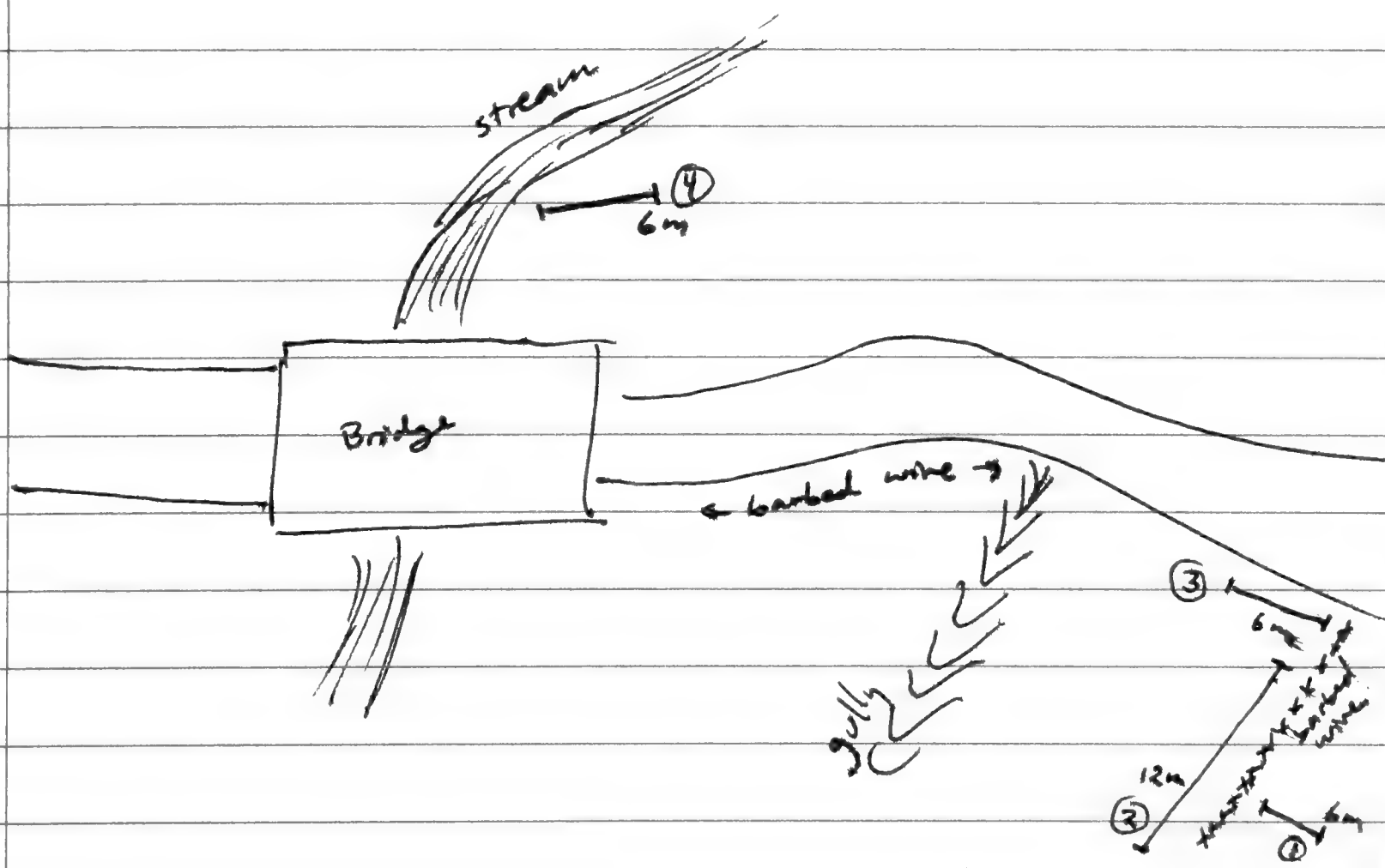
Temp: $\sim 81^{\circ} \text{F}$

Weather: overcast

Habitat: 2^o growth, stream crosses under bridge (clothes-washing for Manuel's family), clearing along sides of the road, many birds not seen closer to the restaurant. Blue-black grassquit, displaying.

Net hours: open for $\sim 1 \text{ h}$ today
= 2.5 net hours

Notes: near Manuel's cabaña.



D. Val,
E.H.

31

Journal - net records

28 June 1999

Species	<i>C. lanceolata</i>
Bands	RB/Bal
Alum #	030
Sex	M
Age	Ad (DM)
Net (tr.)	3 (3)
Time	4:45
Bird + Bag	34.0
Bird wt.	17.5
Blood #	LTM99 - 030
Horn #	LTM99 - 030-H
Parasite #	99 LTM030
Tarsus	19.78
Nare to tip	5.22
Exp. Cul.	7.29
Skull to tip	10.42
Cap (LxW)	18.71 x 9.36
Wing Chord	69
Tail main	35
Tail ext.	12.47
Oss.	—
BP (0-4)	0
CP (1-3)	2
Molt	0
Fat	1
notes.	white parasites around eyes

DuVal,
E.H.

Journal

32

29 June 1999

Site: Isla Boca Brava, bridge site

Temp: ~81°F

Weather: overcast

Habitat: same site & net arrangement/#s
as yesterday.

Net hours: opened 8:00, closed 11:00

$2.5 \times 3 = 7.5$ net hours total

Notes: Manuel's wife = Lucia(?)

sons = Lucrécio

Ba...?

Net hrs. also: 5pm - 6pm = 2.5 net hours

TOTAL NET HOURS = 10

Mental note: do not hand birds to Manuel's kids. Manuel asked about the cost of nets/bands/etc., expressed interest in catching LTM's as pets. I tried to dissuade him as much as my Spanish would allow...

DuVal,
E. H.

Journal - net records

29 June 1999

Species	Rufous-tailed Hummingbird	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata
New / Recap?		new	new	new	new	new
Bands		BG/Gal	YB/Ral	YG/Bal	BR/Bal	YP/Bal
Alum #		031	032	033	034	035
Sex		M	F	M	F	M
Age		Juv	Ad	Juv	Ad	Ad (PM)
Net (tr.)	3	3(2)	3(2)	1(2)	2(2)	2(1)
Time	8:10	8:55	8:55	8:55	9:50	11:00
Bird + Bag	22.7	39.5	36.0	34.7	39.5	36.2
Bird wt.	5.7	19.1	19.8	18.2	18.9	20.2
Blood #		LTM99-031	LTM99-032	LTM99-033	LTM99-034	LTM99-035
Hormone #		—	—	—	—	LTM99-035-H
Parasite #		lots of EDTA 99 LTM031	99 LTM032	99 LTM033	99 LTM034	99 LTM035
Tarsus		20.79	19.77	19.75	17.69	20.79
Nare to tip	19.74	6.23	6.25	6.24	6.22	6.24
Exp Cul.	21.83	8.31	8.32	9.35	8.34	9.35
Skull to tip		10.40	11.45	12.48	11.45	12.46
Cap (LxW)		16.63x9.36	—	—	—	8.34x21.84
Wing chord	60.05	71	69	69	63	71
Tail main		34	35	36	34	36
Tail ext.		9.37	10.43	9.35	feathers 0 present	15.59
Oss.		—	—	—	—	—
BP		0	2	0 scaly	3	0
CP		2	1	1	1	1
Molt		all - to black	0	body, head	0	body, head, wings
Fat		1	2	0	1	trace
Notes	lice	cap incompl. to black plumage	*flew poorly - injured?	red spot coming in		trace green feathers

DuVal,
E.H.

Journal, net records

34

29 June 1999

Species	C. lanceolata	C. lanceolata	red- legged honeycreeper	C. lanceolata	C. lanceolata	C. lanceolata
new/recap	new	new		new	RECAPTURE	new
bands	YR/Ral			GG/Bal	YY/Bal	GB/Yal
alum #	036		Buff- throated woodcreeper	037	008	038
sex	M?	?		MA F	M	?
age	Juv.	Juv.		Ad	Ad (DM)	Juv.
net (tr.)	3(2)	4(2)		3(1)	3(1)	2(2)
time	11:00	9:45		5:10	5:10	5:10
bird + bag	38.3		38	40.5	42.5	35.5
bird wt.	19.2	escaped		21.1	18.4	18.6
blood #	LTM99-036			no blood taken	Red Cell only LTM99-08	LTM99-038
hormone #	—			↓	LTM99-008-H	—
parasite #	99LTM036				99LTM008	99LTM038
tarsus	19.75			19.77	20.78	18.74
nare to tip	6.25			6.24	6.24	6.22
exp. cul.	9.38			8.32	8.31	8.31
skull to tip	13.5			12.49	11.44	11.45
cap (L+W)	6.24 x 16.62			—	8.35 x 7.65	—
wing chord	71			69	72	68
tail main	30			34	35	31
tail ext.	7.39			11.44	11.46	10.42
oss.	—			—	—	—
BP	1			2	0	0 scaly
CP	1			1	2.5	1
molt	0			lost 4 20	0	none
fat	1			2.5	trace	2
notes	patchy cap tick on eye			tiny spot red	green feathers on belly	

DoVal,
E. H.

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Journal, net records

July 1999

Site: Isla Boca Brava, water tank

Temp:

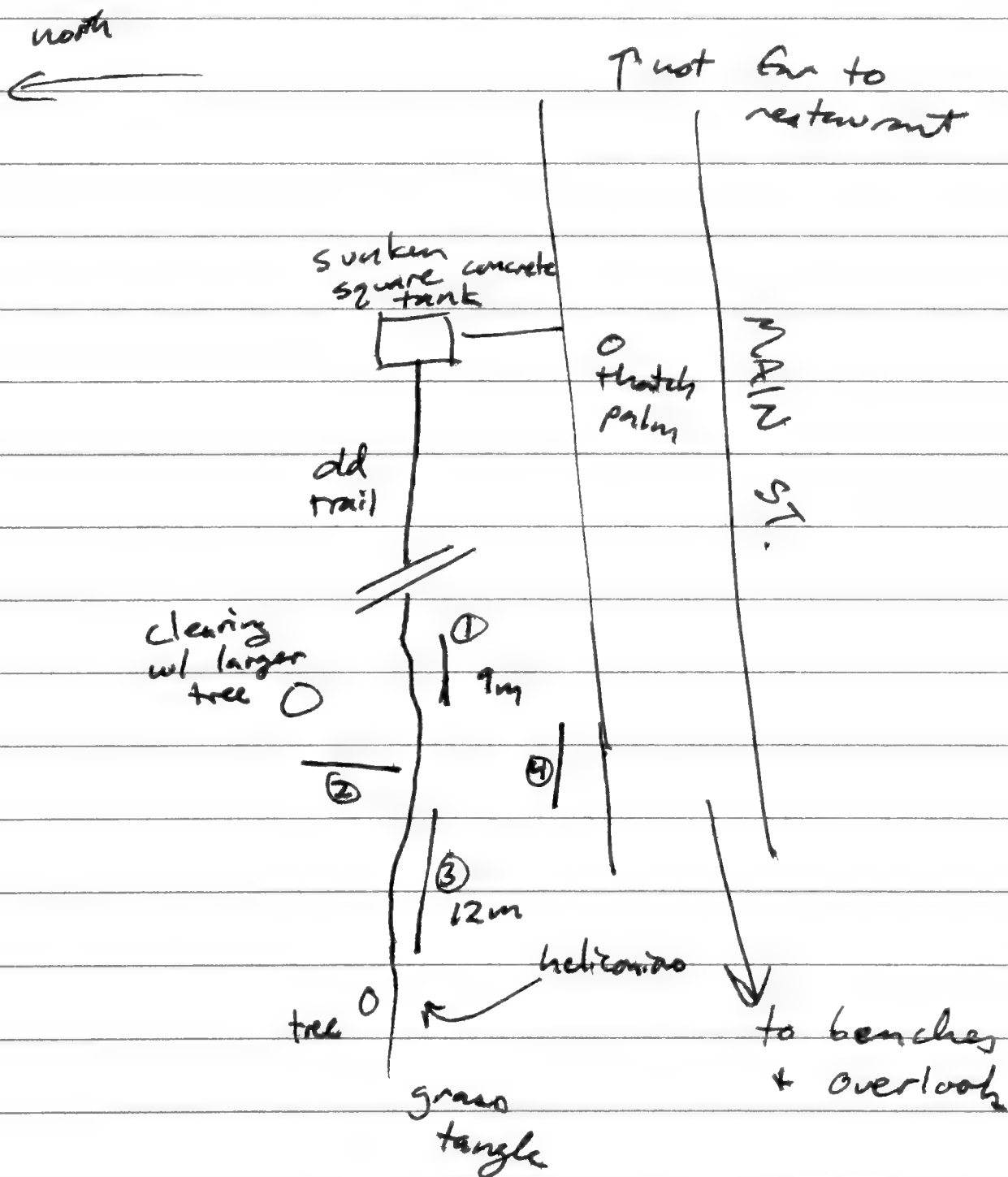
Weather:

Habitat:

Net hrs: $5 \frac{1}{2}$ total

Nets opened 10:00 closed 12:00

Notes:



DoVal,
E.H.

36

Journal - net records

July 2 1997

Species	C. lanceol. new					
Band	YG/Bal					
Al #	039					
Sex	M (DM)					
Age	Ad					
Net (tr.)	4(3)					
Time	10:20					
Bag + bird	37					
Bird	17					
Blood #	LTM99-039					
Horn #	LTM99-039-H					
Parasite #	99LTM039					
Tarsus	19.76					
Nare to tip	6.22					
ex. culmen	8.31					
Skull to tip	10.39					
Cap (LxW)	19.78x9.37					
Wing chord	73					
Tail main	35					
Tail ext	15.67					
Oss.	—					
BP	0					
CP	2					
Molt	0					
Fat	tr					
Notes	lots of eggs white parasites					

DuVal,
E. H.
1999

Journal

37

2 July 1999

RB/Y al ♀

RB/G al ♀

—Y/— al DM

YG/— ♀

Banded birds located near the
bee tree site. Through the
forest near a large (oak?)
triangulated by spiky palm trees.

Repeated "pip" cal and 4-8
females plus at least one
definitive male congregated to
check me out & fussed. Many
banded. RB/Y was the most
enthusiastic complainer. Nests
nearby perhaps?

DuVal,
E. H.

Journal

38

3 July 1999

Site: Isla Boca Brava, ^{hidden} water tank

Temp:

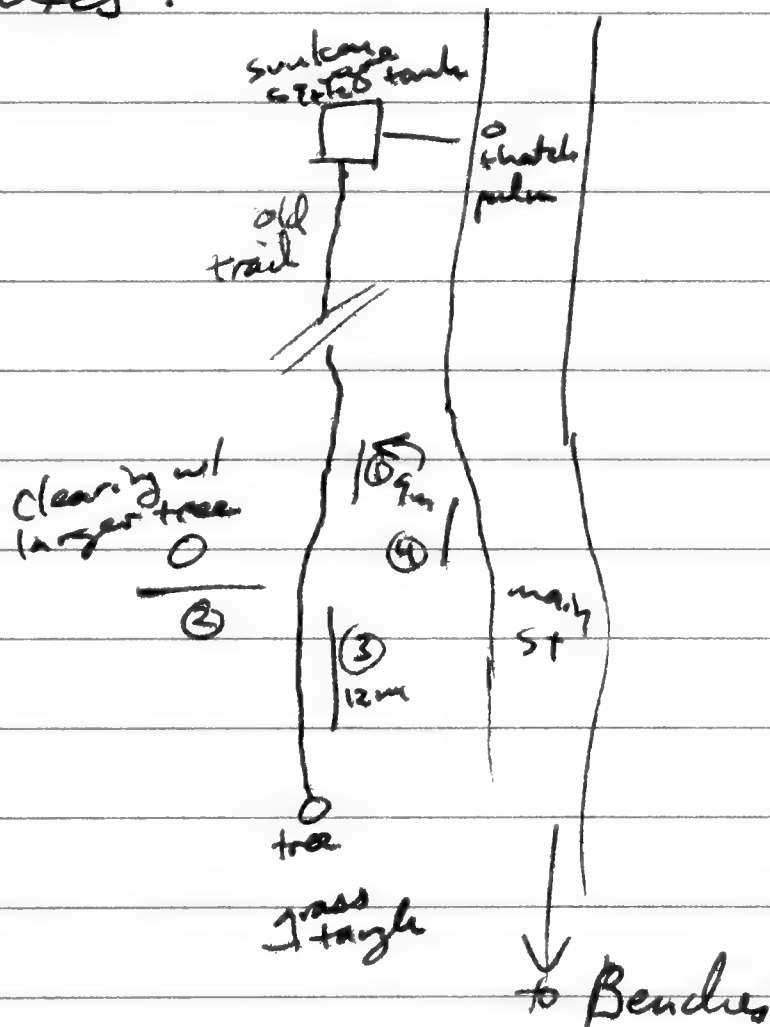
Weather:

Habitat: Same as yesterday.

Net hrs: $13\frac{3}{4}$ net hours ($2\frac{3}{4}$ p. hour for 5h.)

opened Tan closed 12pm

Notes:



DuVal,
E.H.

Journal - net records

3 July 1999

Species	Glanceolata	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata	C. lanceolata
	VBY	BVR	BVR	VBY		
Bands	GB/Gal	BG/Ral	BG/Yal	YG/Gal	BB/Ral	
Al #	040	041	042	043	044	
Sex	M? RS	M? RS	M? RS	M? RS	F?	
Age	Juv.	Juv.	Juv.	Juv.	Ad	
Net (tr.)	4(2)	1(3)	3(2)	1(2)	3(1)	
Time	7:50	7:50	10:50	10:50	11:10	
Bird + Bag	34	37	37.5	37.5	38	
Bird wt.	17.5	17	20.0	17.0	20.5	
Blood #	LTM99-040	LTM99-041	LTM99-042	LTM99-043	LTM99-044	
Horn #	—	—	—	—	—	
Parasite #	—	—	—	—	—	
Tarsus (mm)	19.78	19.75	18.73	19.78	18.72	
Nare to tip	5.22	5.21	6.25	5.21	6.25	
Exp. Culmen	7.28	7.29	8.32	8.365	8.33	
Skull to tip	10.41	10.41	11.46	10.42	12.46	
Cap (LxW)	spot	spot	red cap only 10.39 x 11.45	yellow w/ 2 red feathers	—	
Wing chord	69.5	69	69	68	70	
Tail main	36	35	34	35	35	
Tail ext.	10.42	10.42	11.46	8.32	8.32	
Oss.	—	—	—	—	—	
BP	0 scaly	0 scaly	1 scaly	0 scaly	3 wrinkled	
CP	1	1	1	1	1	
Molt	some breast cap	some breast	some body	some body	—	
Fat	1	tr	1	1	1	
Notes	red spot some eye w/ 1st year?	no eye white red spot only	air sac under skin side breast	4 eye white parasites	~5 eye white. Flew away poorly - injured?	

DuVal,
E.H.

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Journal

3 July

1997

Isla Boca Brava, Chiriquí Prov., Panamá

Frank told me last night that they found a nest with 2 chicks while cutting laurel trees ~ 3-4 weeks ago near the 2nd landing. I set off today and found the empty nest - a bit large, but otherwise perfectly manakinish. The site is at the back of a clearing, 200 paces after the bridge near Manuel's house (you can see the house from the road at this point). Perhaps shall re-visit in the area next year?

DuVal,
E.H.

Journal - net records

Session 25

41

5 July 1999

Site: 188, first beach

Temp: 28°F

Weather: Sunny & Cool

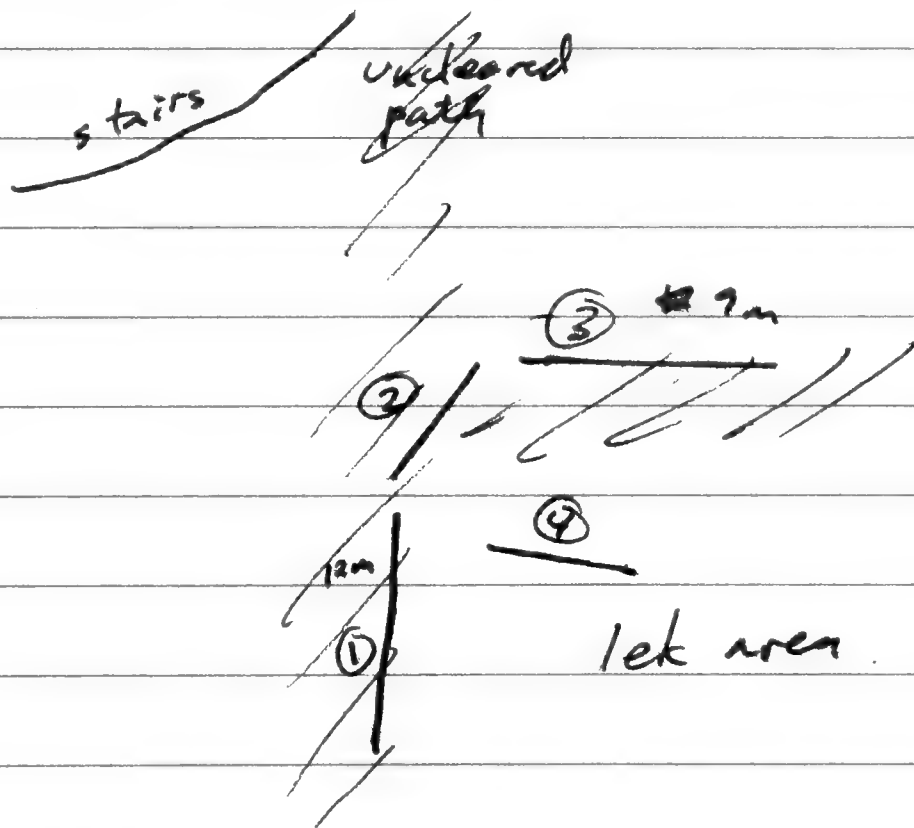
Habitat: see other notes on 1st beach
relatively open forest, much clearing

Net hrs: 7:30 - 12:00 nets 1, 2, 3 = $2\frac{1}{4} + 4\frac{1}{2} + 4\frac{1}{2} = 10\frac{1}{2}$
7:00 - 12:00 net 4 = 1.5

~~total~~ PM 4:00 - 6:00 nets 1, 3, 4 = $2\frac{1}{4} + 2 = 4\frac{1}{2}$

TOTAL = $16\frac{1}{8}$ h.

beach



1 PDM singing w/ DM ~ 8:00

Dancing for ~ 15 s. (couldn't see who)
little activity.

Help from Bruce & Lori in the AM

DuVal,
E.H.
1999

Journal-net records

42

5 July 1999

Species	Buff-throated woodcreeper	C. lanceolata	C. lanceolata	
bands		BO/Yal	GB/Bal	* had a difficult time bleeding GBB, & she couldn't fly (>~1ft) when released
Al #		045	046	
sex		F	F	
age		Ad.	Ad.	
net (tr.)		1(3)	1(3)	YP/Ral ♂ toledoing w/ unb. DM across "Main St" from Frank's lot.
time		12:00	5:50 pm	
wt in bag		36.5	40.5	
bird wt.		20.5	20.00	
blood #		LTM99-045	LTM99-046	
horn #		—	—	Note: added ~100 ul more longmines to # 003 & 004 - sample had solidified. in
parasite #		—	—	
tarsus (mm)		18.74	19.75	
nare to tip		6.25	6.25	
exp. culmen		8.34	8.31	
skull to tip		11.46	11.43	
cap (LxW)		—	1 red feather	
wing chord		70	72	
tail main		35	38	
tail ext.		12.5	8.31	
ossif.		—	—	
bp (0-4)		2	3	
cp (1-3)		1	1	
molt		0	0	
fat		2	1	
notes			3 eye wh. parasites *	

DuVal,
E.H.
1999

Journal

43

July 1999

Site: IBB, first beach

Temp:

Weather:

Habitat:

Net hrs:

8 am - 12:30 am nets 1, 3, 4
 $2\frac{1}{4} \times 4\frac{1}{2} = 10\frac{1}{8}$ h.

Same setup as 5 July 1999

GBB ♀ in sapling near the banding
site. ☺

DuVal,
E.H.
1999

Journal

44

6 July 1999

first beach

Species	Buff-throated Woodcreeper	Buff-throated Woodcreeper	LTM new Bow
Bands			BO/Gal
Alum #			047
Sex			F
Age			Ad (BP)
Net (tr)	2 (2)	2 (2)	1 (2)
Time	8:00 am	8:20 am	12:10
Wt/bag			43
Wt.			Bag wt not recorded
Blood #			LTM99-047
Horn #			—
Parasite #			—
Tarsus			19.77
Nare/Tip			6.24
Exp Cul			9.375
Skull/Tip			11.46
Cap (LxW)			red spot
Wing Chord			69
Tail main			36.5
Tail ext.			13.5
Ossif.			—
BP			2-3 wrinkling
CP			1, 5 sl. swollen
Molt			0
Fat			2
Notes		marked rectrices w/ perm. molt	cap puff feathers missing

DuVal,
E.H.
1999

Journal

45

7 July 1999

Site: IBB Bee tree

Temp:

Weather: Overcast, warm

Habitat: see notes

Net hrs:

3x4 8:00-9:00

1+2 8:00-12:30

3x4 10:30-12:30

5 10:30-12:30

all 4:00-5:30

$\frac{9}{2} \times \frac{3}{4} = \frac{27}{8}$

~~$4\frac{1}{2} + 1\frac{3}{4} = \frac{13}{2}$~~

~~$3\frac{1}{4} + \frac{13}{2} = \frac{29}{4}$~~

TOTAL ~~$18\frac{1}{4}$~~ $15\frac{5}{8}$

Calling in the area:

1 banded DM - unable to read

1 unbanded DM

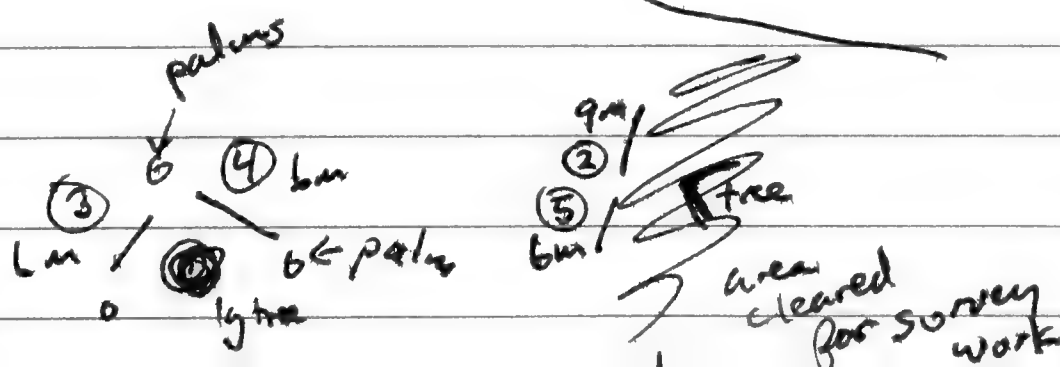
2 ♀ unb., 1 juv. begging from ♀

ocean

o bee tree

12m / ①
(same place)

palms



DuVal,
E.H.
1999

Journal - net records

46

7 July 1999

species	C. lanceolata	Rufous-tailed hummingbird	C. lanceolata	Dusky-capped flycatcher
Bands	YR/Bal		GR/Gal	
Alum #	048		049	
Sex	F		M? ^{Red} on head	
Age	Ad		Juv. ^{Scaly}	Juv ^{Scaly} ?
Net (tr.)	2(2)	2(3)	2(2)	5(2)
Time	9:00	10:10	5:20	5:40
4/leg	38.5	14.75	40.0	→ 50g
Wt.	18.75	5g	21.5	
blood #	LT199-048		LT199-049	
Horn #	—		—	
Parasite #	99LT1048			
Tarsus	18.715		20.82	
Nare/tip	6.25		6.235	
Exp Cul	8.32		8.32	
Skull/Tip	11.45		10.42	
Wing (Lxw)	67		70.5	
Wing Chord	37 67		35 36	
Tail main	8.34		9.36	
Tail ext.	8.34		—	
Ossif.	compl?		—	
BP	3 work.		0 scaly	0 scaly
CP	1		1	
Molt	0		some head	
Fat	3		tr.	
Notes	① foot outer toe tip gone - old wound			~ 6 inches? How is that measured?

DuVal,
E.H.
1999

Journal

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8 July

1999

Isla Boca Brava, Chiriquí Prov., Panamá

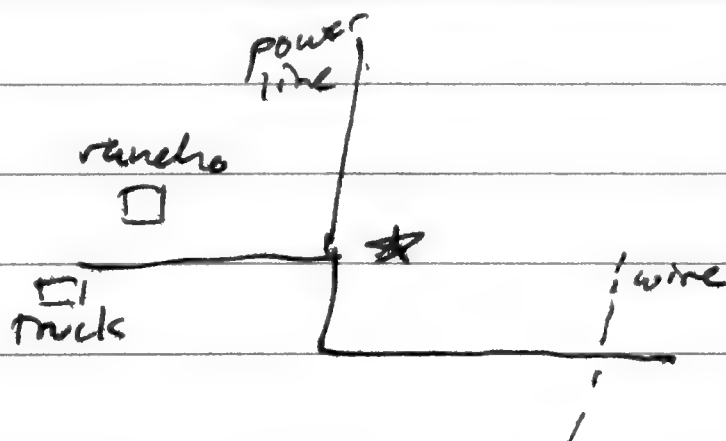
Hike: notes

Generally the manakins are much quieter than when I first got here. Only one dancing lek was heard en route to John's property.

* location: Just below the cleared lots to the ocean side. Saw 1 DM + 1 ♀. A definite ^{potential} netting site.

NOTE: My liquid N_2 is low lately (?!) May need to buy a little more in David soon.

In the cleared lots area:



Saw DM & RCM in trees. RCM approached DM with begging call & ~~left~~ DM did the "nrow" call and left. Also

DuVal,
E.H.
1999

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

8 July

near here: blue-grey tanagers, variable seedeaters, woodpeckers & fledgling. Binocs need to be more steady! Also 3 blk & red tanagers (scarlet-rumped?) in John's field. ♀ manakin eating berries. DM + RCM both sunning self on branches with wings spread.

Heard 3 manakins near the cabaña this morning - 2 were green-phase (1 was warbling, both pip & (chirp?) calls). Didn't see either.

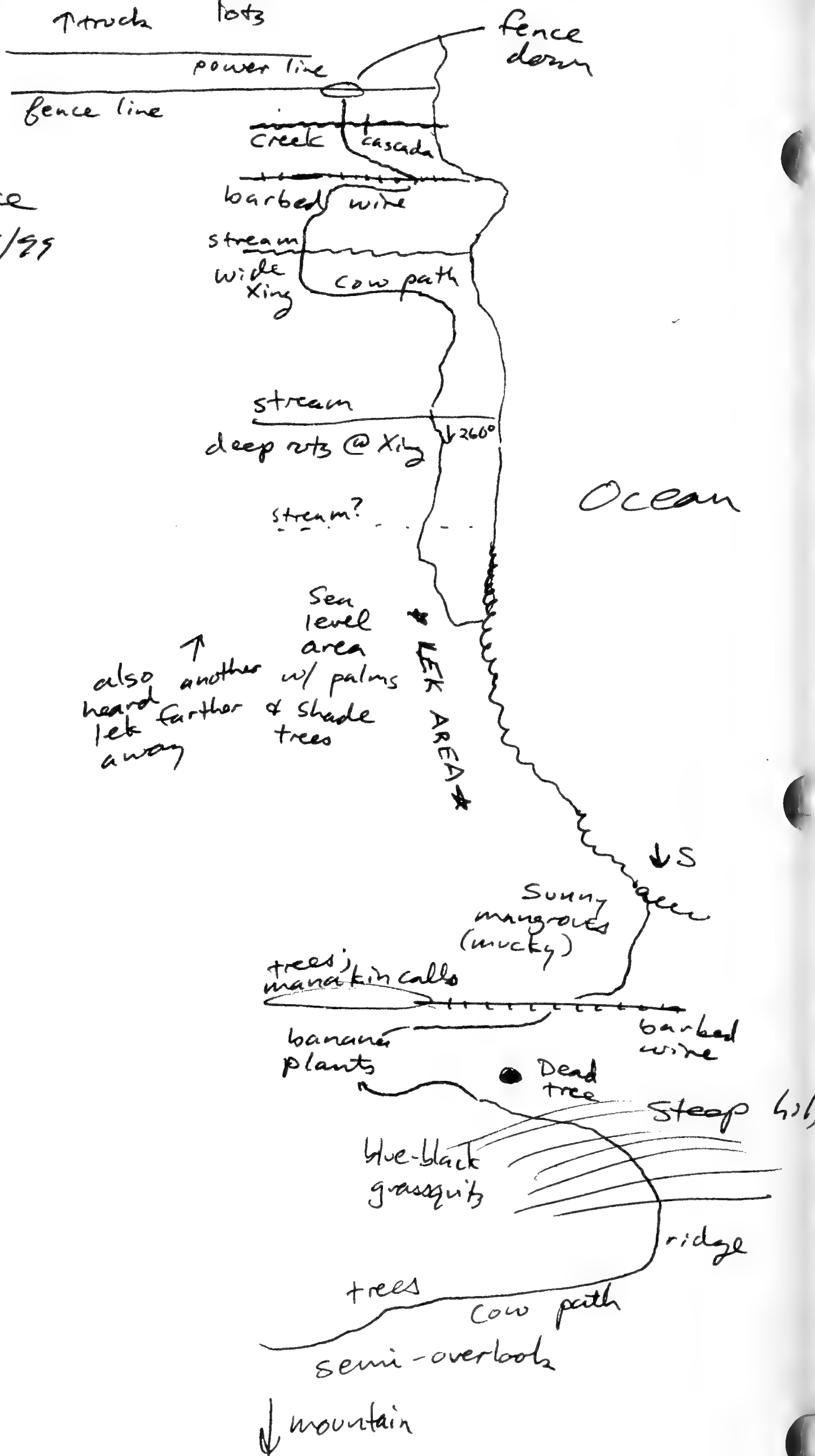
Several new, promising lek locales today

- ① below the cleared lots
- ② at the crossing of power lines near the truck
- ③ On John's land, near the rocky beach (perhaps several territories in one area?)
- ④ At the well near the old horse field, where the power lines end.

⑤ near the bridge (confirmed perch)

⑥ by the 2^o beach, just up the gully from beach

Map of hike
7/8/99



D. Val,
E.H.
1999

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

I have found fresh burrows w/ worn trails leading to them at the tree area of bee tree lch + near the second beach lch. What lives there?

Saw 2 black iguanas on the rocks of the first beach. They sheltered under an overhang, just around the point of rocks toward the second beach. Manuel was working with his brother Franklin, & as they walked home they stopped to talk birds. Franklin mumbles, but I have no problem understanding Manuel. They both used the binocs. Manuel asked how much they cost, & I just said "mucho." No further questions. Manuel spotted 2 ♂ and checked for bands (none). I think he would be a great field assistant if we could communicate.

Procyon variegatorides melania

Saw a blk. squirrel w/ rufous sides - also ab a manthled howler. Variegated squirrel

DuVal,
E.H.
1999

Journal

Sum 201

Isla Boca Brava, Chiriquí Prov., Panamá

July 1999

Site: 1BB Bee Tree

Temp: ?

Weather: ? ~~clear~~ no rain

Habitat: see bee tree description

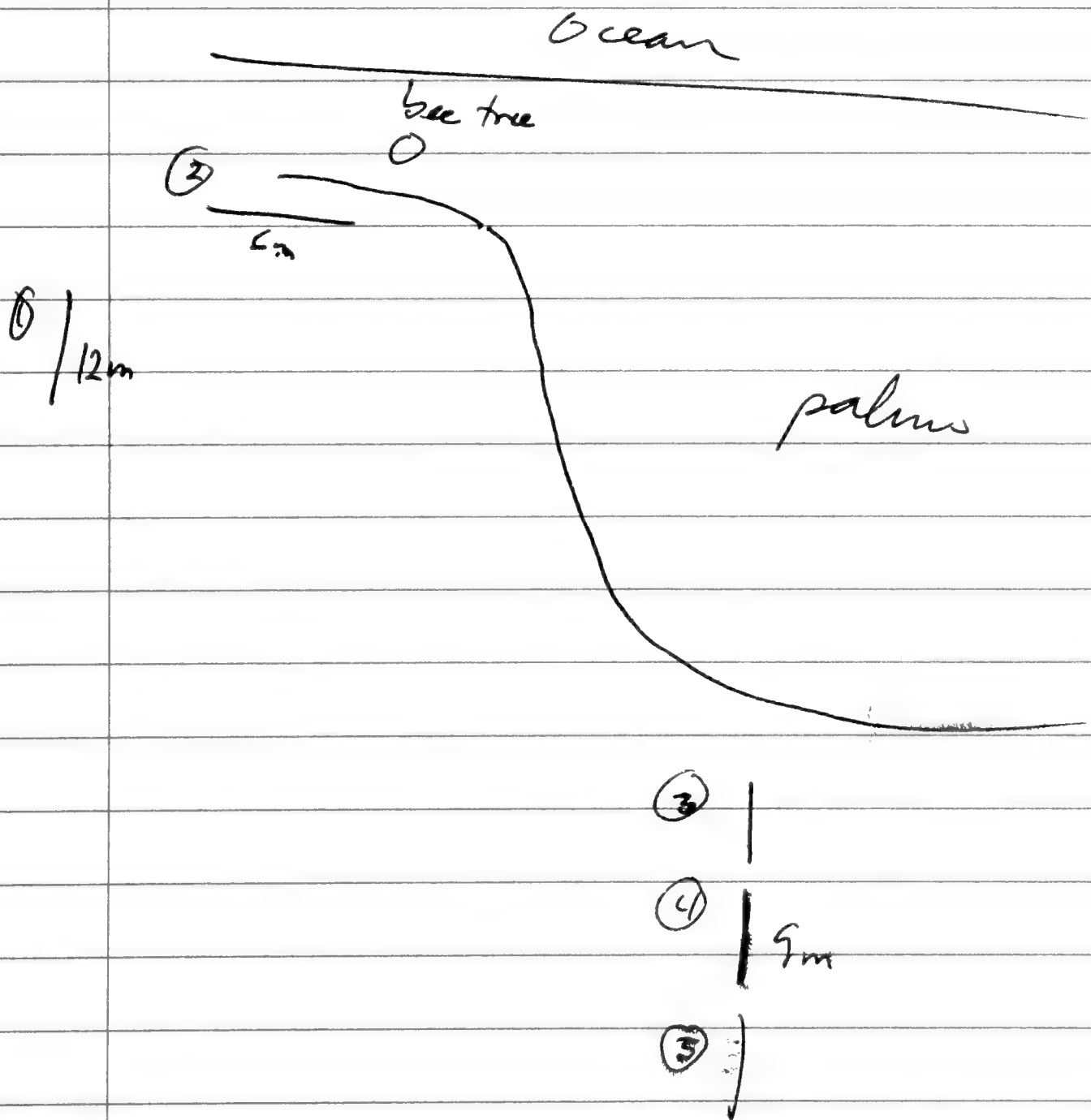
Net hrs: 7:00 - 10:00 am

$3\frac{1}{4}$ for 3 h. = $9\frac{3}{4}$ h.

Caught nothing.

Moved nets to bridge site

Richard Williams helping (until 11 July)



DuVal,
E.H.
1995

Journal

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Isla Boca Brava, Chiriquí Prov., Panamá

July 1999

Site: IBB bridge site

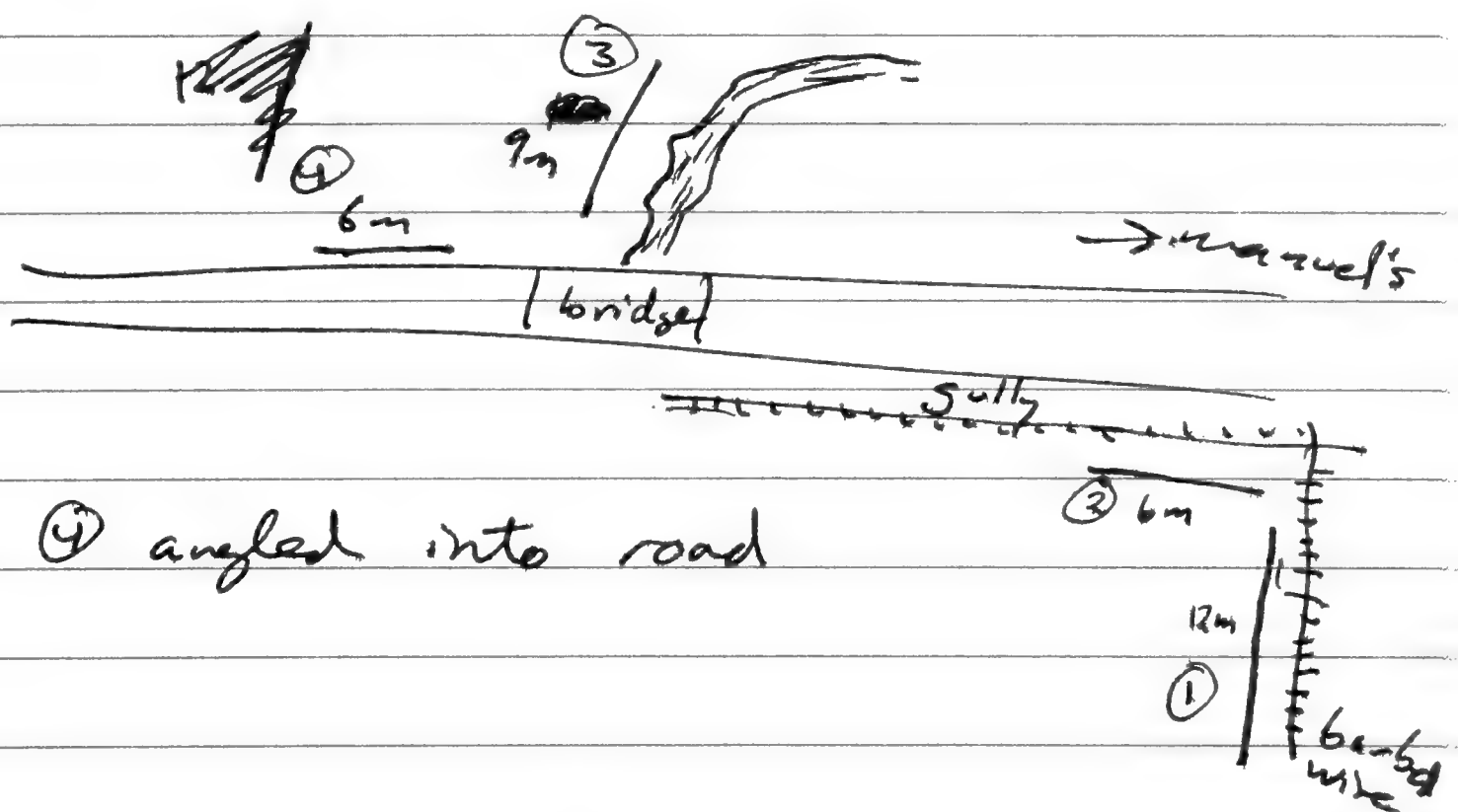
Temp: ?

Weather: Clear, slight breeze,
cooler in evening

Habitat: near fruiting trees on
(E) bank of road, & near
freshwater stream where birds
are often seen bathing. Yesterday
2 DM's were dancing near
the streamside net.

Net hours: 11 hours total
opened 2pm - 6pm

Other birds seen: little hermit,
pale-vented pigeon, blue-black
grassquit.



DuVal,
E.H.

Journal - net records

52

9 July 1999

Isla Boca Brava, Chiriquí Prov., Panamá

Species	C. lanceolata	C. lanceolata	Charming hummingbird
Bands	YR/Pal	GY/Bal	
Alum #	050	051	
Sex	?	♀?	
Age	Juv?	1+	
Net (tr.)	1 (1/2)	1 (2)	
Time	4:20	4:20	3:00
Wt/bag	33	36	
Wt.	17	20	
Blood #	LTM99-050	LTM99-051	
Horn #	—	—	
Parasite #	—	—	
Tarsus	18.74	19.47	
Nare/Tip	5.22	6.24	
Exp. Cul	7.30	8.32	
Skull/Tip	10.42	12.47	
Gape (LxW)	—	—	
King Chord	68.5	67.0	
Tail main	36	34	
Tail ext.	7.31	6.25	
Oss.	—	bully?	
BP	0 scaly	0 scaly	
CP	1	1	
Molt	body head	0	
Fat	1	1/2	
Notes	red streaks on head		

DuVal,
E.H.
1999

Journal

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Isla Boca Brava, Chiriqui Prov. Panama

July 1999

Site: Isla Boca Brava, Bridge Site

Temp:

Weather:

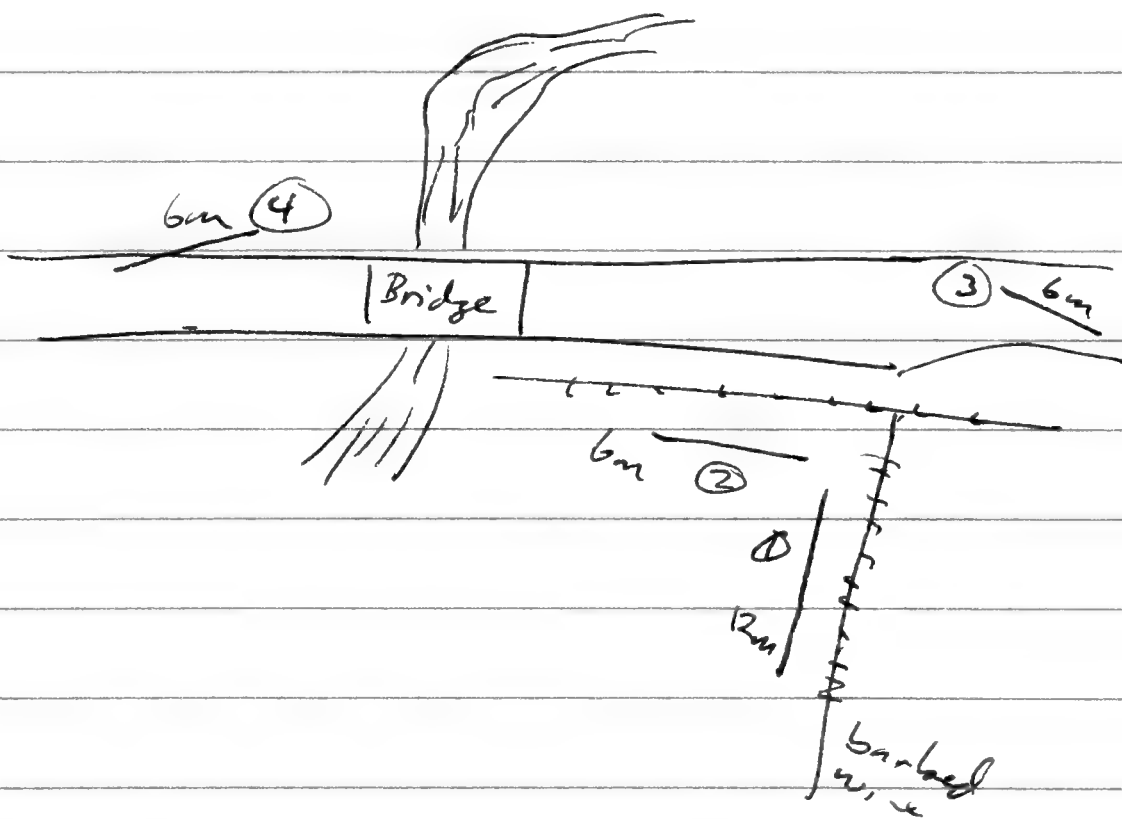
Habitat: see yesterday

Net hours: $14\frac{3}{4}$ total

8:00 - 12:00 main area - same
net places as yesterday. $2\frac{3}{4} \times 4$ ~~12h~~

4:30 - 6:00 towers

11h
 $2.5 + 1.25$
 $3\frac{3}{4}$



DuVal,
E.H.
1999

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Journal

10 Jul, 1999

Isla Boca Brava Chiriquí Prov., Panamá

Species	C. lanceolata	Chiroxipha lanceolata	LTM	LTM	LTM	Scarlet- rumped tanager	LTM.
Bands	GR/Yal	RB/Ral	GY/Yal	BR/Gal	<u>RECAP</u> GY/Yal	—	YB/Bal
Alum #	052	053	054	055	054		056
Sex	F	M?	?	M		?	M?
Age	Ad (bp)	Juv (1?)	Juv	Ad (4?)		Juv.	Juv (1-2?)
Net (tr.)	2 (1/2)	1 (2?)	1 (1/2)	2 (1/2)	40000 2	4 (1)	1 (2)
Time	8:20	8:20	9:15	9:15	10:00	11:00	6:00
Wt/Bag	37.75	37.5	36.5	42.5		43	38
Wt.	17.75	no bag wt.	16.5	18.5		—	17.5
Blood #	LTM99-052	LTM99-053	LTM99-054	LTM99-055			LTM99-056
Horn #	—	—	—	LTM99-055-H			—
Parasite #	—	—	—	99LTM055			—
Tarsus	19.765	19.75	18.7	20.79		19.75	19.753
Alare/Tip	6.25	6.24	6.235	6.23		10.42	5.225
Exp. Cul	8.335	8.30	8.315	7.28		12.48	8.30
Bill/Tip	13.56	11.435	12.46	11.46		15.61	11.455
Tip (LxW)	—	2 red feathers	—	11.44* 19.74		—	
Wing Chord	69.5	69	65	73		75	69
Tail main	37	36	37	35		69	34
Tail ext.	8.32	12.47	8.345	15.6 ^{only one}		—	8.345
Oss.	"rich & fully"?		—	—		—	?
BP	3	scaly 0-1	0 scaly	0		0 scaly	1 scaly
CP	1	1	1	1		1	1
Molt	—	end in pin wings sym.	—	none	Released immediately after capture	Juv feathers no molt	body head
Fat	1/4	1	1	tr.		1/2	1
Notes	2 eye wh. parasites blood coagulated		only 1 tube blood badly caught +	8/5 (4R) eye parasites close pics		tick R eye yellow gaps	cap growing in 2 tracts see non-slide photo

DuVal,
E. H.
1999

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

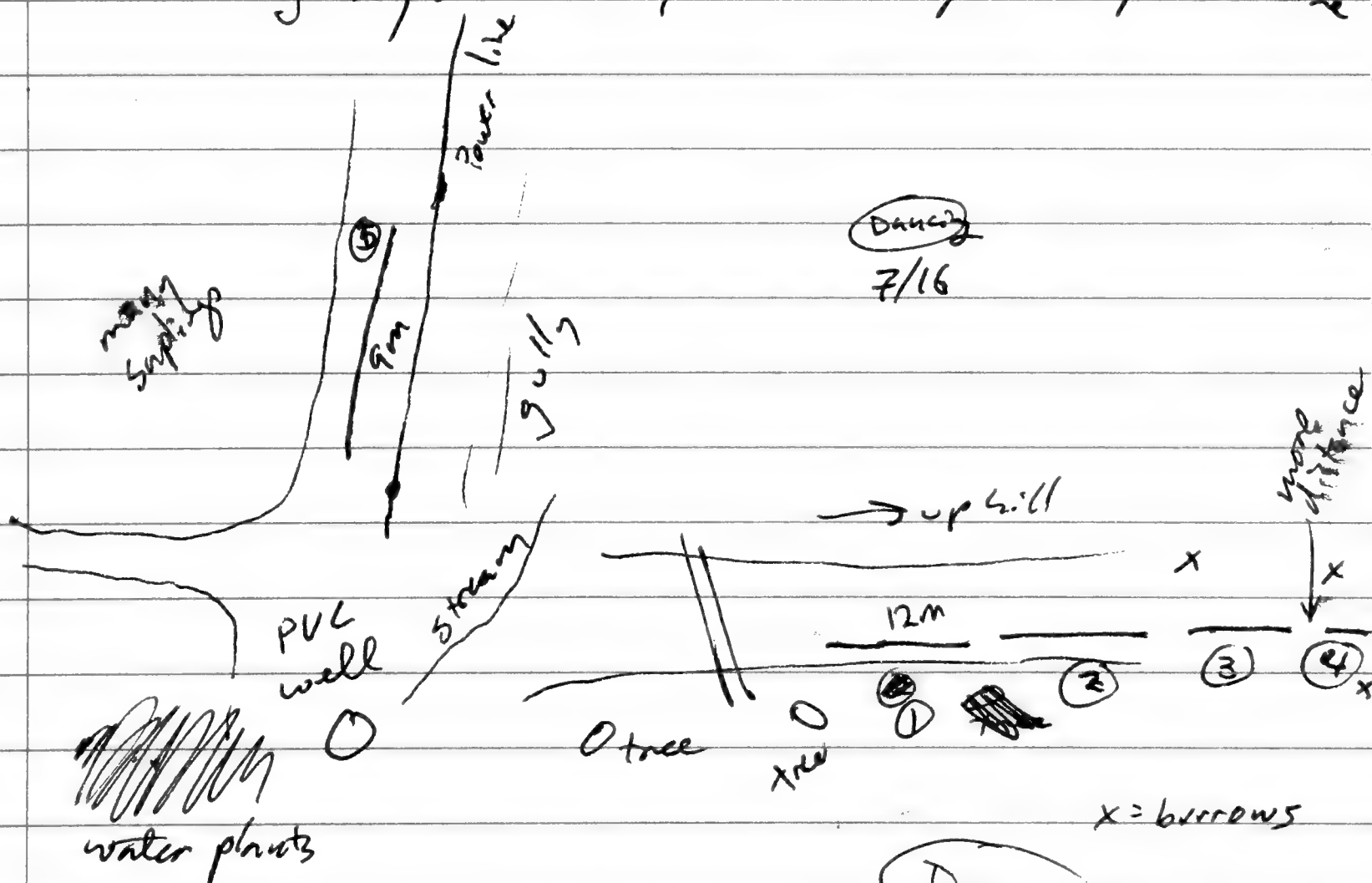
July 1999

Site: IBB "Well 2"

Temp: ~83° F Weather: sunny, clear
Habitat: near a backup well
cerca the cleared lots.

Secondary/Tertiary scrub, a few
larger trees. Very thick off
of the freshly cleared power
lines. Small stream near well,
with lg.-leaved heliconia/lotus-
like set of plants nearby.

Very hilly due to H₂O's gully.
Lek visible but across another
gully. Berry trees up the power line



Net hours: 9-1:00 $3\frac{1}{4} \times 4 = 13\text{ h.}$


DuVal,
E. H.
1999

Journal

11 July

1999

Isla Boca Brava, Chiriquí Prov., Panamá

Species	C. lanceolata	Barned Antshrike	Barned Antshrike	Blue-grey Tanager	Rufous-tailed hummingbird
Bands	BB/Yal				
Alum #	057				
Sex	M (PDM)	♂	♂		
Age	"Juv - cerulean-backed 3-4?"				
Net (tr.)	4(4)	2(4)	2(4)	5(1)	5(2)
Time	12:10	9:30	9:30	9:50	11:30
Jt+/Bag	35.5	44	47.5	45	
Wt.	19.0	28		27.5	
Blood #	LTM99-057				
Horn #	LTM99-057-H				
Parasite #	99LTM057				
Tarsus	19.75		25.975	16.62	
Fore/Tip	6.23	11	11.45		
Exp. Cul.	8.325		15.61		
Cull/Tip	11.44		21.82		
Wing (LxW)	8.34 x 19.76		—		
Wing chord	71.5		72		
Tail main	36		57.5		
Tail ext.	11.465		—		
Oss	—		—		
BP	0 scaly	0	1	0 scaly	
CP	2		1		
Molt	head, back, BP, in pin		1/4		
Fat	1				
Notes	2 ticks lots of eye parasites: PHOTOS	←	5 primaries black, symmetrical, 1 secondary		

DuVal,
E.H.
1999

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

July

Notes from conversation w/ Richard Williams

David McDonald's plumage phases for long-taileds, as remembered by R. Wms.

<u>years</u>		<u>plumage</u>
0-1	Plumage like ♀	green
1-2		red-capped
2-3	blk. face, red cap	black-faced
4+	full definitive ♂	DM

tail lengthening throughout

females tawny-capped; duller red

DuVal,
E. H.
1999

July Journal

Richard Williams Isla Boca Brava, Chiriquí Prov., Panama

July

lance - seem to flock, perhaps more social,
mixed sex flocks, ♀ vocal as well as
males

Perhaps a perch approach is limiting
Calls are very different

Pip

Que rico, broken

Tia

Warble

Noon

Dance sound different

Colors (?) R cap brighter

possibly bigger

blue back sl. darker

bird bulkier-looking?

Contr. w/ Monteverde

Diff habitats, density diff large
in Monteverde ~ 80 males, 80 hectares

Nesting habits - no suggestion of communal
nesting

Reasons to be together - not a great
abundance of fruiting trees; T pop in
disturbed areas; tree height

Wah vs. Wa - aaaaah in long-tailed
Variation betw. ♂ calls in longtailed.

Perhaps the same in lance-tailed?

Note: At the well site, in
the split of a fallen (heliconia-like
plant) leaf there is a pile of spit-
like bubbles teeming with little tadpoles.
Darker dorsal area, speckled head, very
small. What type of frog is this?
Bubble nest ~5.5" long, single tadpole. 5 cm



Rogui says: some Leptodactylids
build foam nests like this.

DuVal,
E.H.
1999

Journal

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Isla Boca Brava, Chiriquí Prov., Panamá

July 1999

Site: Isla Boca Brava, Well site 2

Weather: Very humid!

Net hrs: Opened 8:00 am

Closed 1:00 pm

nets 1-4 used, same placement
as on 7/11/99

total: 12.5 hrs

Habitat: Since Sunday, Franklin's workers
have "cleaned" the area - the
paths have been further cleared
of heliconia + saplings

Notes: Other dancing perch heard across
the path from the one observed on
7/11. See map from 7/11

From the field notes:

"SHIT. Manuel just told me that while I was
gone he & Franklin opened the nets and
caught 2 manakins. He said they
kept them in their house for two days,
the birds weren't eating, and they let
them go. Manuel is way too smart for
his own good. I asked him not to use
the nets without me, explained that
Richard, who had studied birds for many years
had killed 2, & I don't know if any will sink
in. I don't want to get M in trouble, but
there are so many reasons why only I should
use the nets!"

DuVal,
E.H.
1999

Journal - net records

Isla Boca Brava, Chiriquí Prov., Panamá

Species	C. lanceolata	C. lanceolata	C. lanceolata
and	YY/Ral	RG/Gal	GY/Pal
Alum #	058	059	060
Sex	M?	F?	F
Age	Juv.	?	Adult
Net (tr)	3(1)	1(1)	3(1)
Time	9:20	9:40	9:20
ird + Bag	18.5	20	not
Bird wt.	17.0	18.5	weighed
Blood #	LTM99-058	LTM99-059	LTM99-060
Horn #	—	—	—
rainte #	—	—	—
arsus	18.74	20.73	19.75
re to Tip	6.24	6.24	6.25
Exposed Culmen	8.33	8.32	8.34
ull / Tip	12.47	11.455	12.485
ip (L x W)	3 red pin	tawny? Green tips on orangish feathers	none
ing Chord	66	69	70
ail main	34	35	35
ail ext.	9.375	8.34	7.30
ssification	—	—	—
BP	○ scaly	○ scaly same pin	○ scaly lots of pin
CP	1	1	1
Molt	○	○ (except BP?)	green pin caps
Eat	1	0.5	1
Notes	2 ticks @ eye light orange legs	no parasites external seen	no parasites external seen

DuVal,
E.H.
1999

Journal

17 July 1999

Isla Boca Brava, Chiriqui Prov., Panama

Site: 1BB, across the "street" from
"Frank's House." might call it "Acacia?"

Weather: overcast, cooler

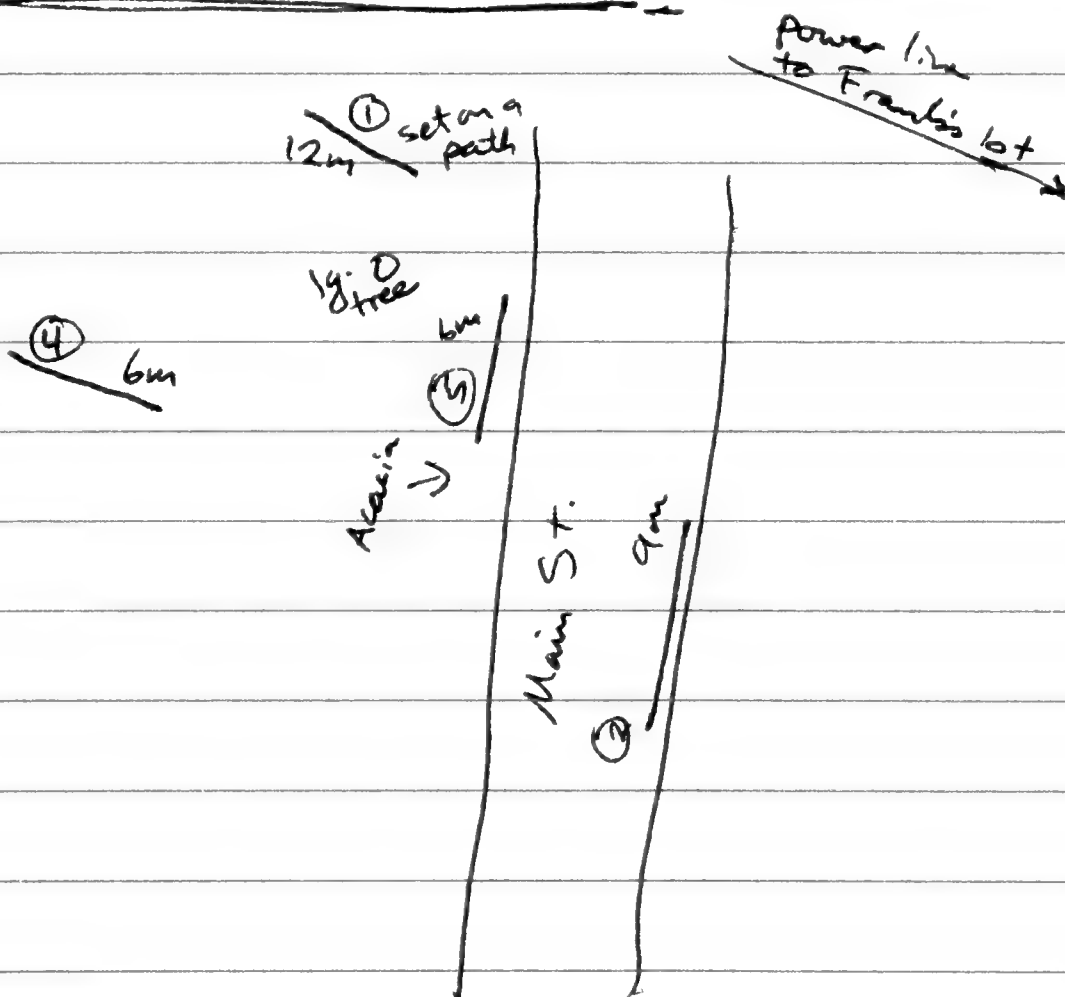
Nets: 1, 2, 3 opened 8:00
4 opened 10:00
5 opened 11:30 } closed 12:30

TOTAL NET HRS: 11.875

10.125
1.25
11.875

Samples 3, 4, 8, 48, 52, 53 have the
mysterious solidifying blood problem

Birds #033 & 039 have the
same color combo



DuVal,
E.H.
1999

Journal

17 July 1999 "Acacia" Isla Boca Brava, Chiriquí Prov., Panamá

species	<i>C. lanceolata</i>	<i>C. lanceolata</i>	<i>C. lanceolata</i>	<i>C. lanceolata</i>
	VPR	RVR		
band	GB/Rad	RG/Rad	BR/Rad	BY/Bal
band #	061	062	063	064
sex	F?	?	?	F?
age	Ad?	Juv	Juv?	Ad?
Jet (tr)	2(2)	1(2)	2(2)	4(2)
Time	8:10	8:30	9:30	10:50
Bird + Bag	34.75	36.25	42.5	40.5
Bird Wt.	17.5	19.0	18.0	19.0
Blood #	LTM99-061	LTM99-062	LTM99-063	LTM99-064
Horn #	—	—	—	—
Param. #	—	—	99LTM 063	—
Tarsus	19.77	19.74	18.70	19.765
Nare to tip	6.23	6.245	6.23	6.235
Exp. Culmen	8.32	9.35	7.31	8.3275
Skull to tip	11.46	11.44	10.42	12.46
Cap (c/w)	tawny	none	none	tawny w/ red pin (2 feathers)
Wing chord	69.5	65.5	not measured	68.0
Tail mean	35	35.5	35	33
Tail ext	10.42	7.28	6.26	9.365
Assif.	—	—	—	—
BP	0 scaly	0 scaly		0 scaly
CP	1	1 "blobby butt"		1
Molt	some body 2 cap	body in pin new feathers		body pin (6p?)
Fat	0	1		1/2
Notes	4 tick ~ 4 eye wh.	YOTR? legs yellower	5 ticks, 4 in one spot over R eye	6 tick (R) 4 " (L) eye 4 eye white

D. Val,
E.H.
1999

Journal

18 July 1999 Isla Boca Brava, Chiriquí Prov., Panamá

Site: IBB "Acacia" near Frank's vacant lot

Weather: sunny, clear

Nets: opened all 5 at 7:30

closed 12:30

TOTAL: 16.25 net hrs

$\begin{array}{r} 3.25 \\ 5 \\ \hline 16.25 \end{array}$

Same net placement as yesterday

NOTES:

7:55 am YG/Gal begging from
another green-phase bird (#43)
caught 16 days ago. Center trail

3 DM's in area

RB/Yal green phase (#15) caught
bee tree, seen bee tree 7/2

DuVal,
E.H.
1999

Journal - net records

18~~3~~ July 1999

"Acacia"

Isla Boca Brava, Chiriqui, Panama

Species	Chlororipha lanceolata
Band	Y B / Gal Gal = YBV
Alum #	065
Sex	M
Age	almost red cap
Net (tr)	1 (1)
Time	11:20
Bird + Bag	38.75
Bird wt.	18. 8 0
Blood #	LTM 99-065
Hormone #	—
Parasite #	99 LTM 065
Tarsus	19.76
Nare to tip	5.22
Exp culmen	7.305
Skull to tip	12.485
Cap (Cxv)	11.435 x 13.51 incomplete
Wing chord	69.5
Tail main	34
Tail ext.	9.35 (25)
Ossif	n.m.
BP	0
CP	1
Molt	pin cap a few cerulean feathers on back
Fat	3/4
Notes	1 tick @ eye no eye white

DuVal,
E.H.
1999

Journal

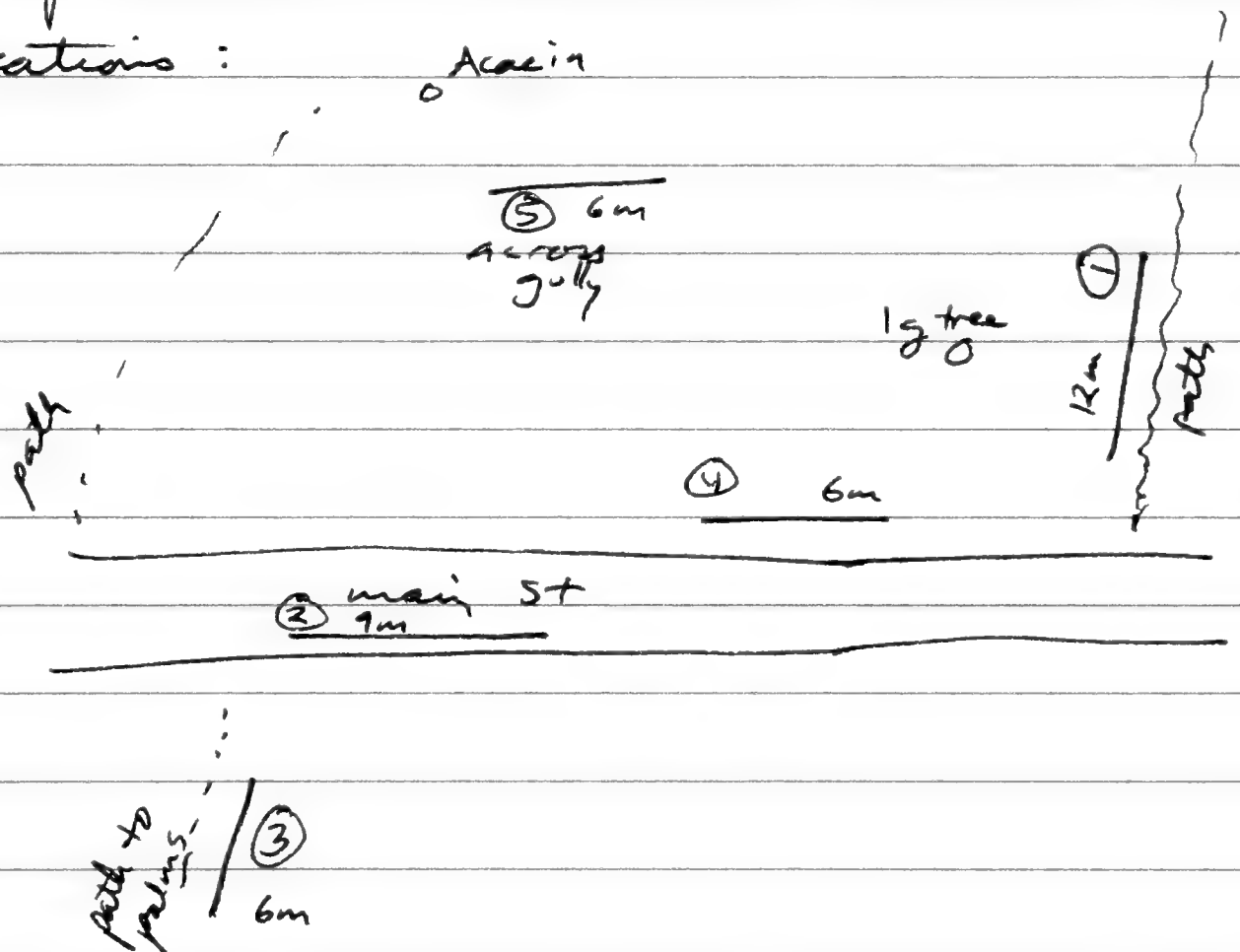
19 July 1999, Isla Boca Brava, Chiriquí Prov., Panama

Site: IBB "Acacia" across main St.
from Frank's.

Weather: Sunny, still

Nets: opened 7:30

new locations: Acacia



Notes: RB/Y near net 5

heard dancing

2 PDM's (1 PDM, 1 RCM)

warbling & waa-ing together
near net 1.

Net hrs: 8-9:30

3-6:30

16.25 net hrs. total

DuVal,
E.H.
1999

Journal - net records

19 July 1999

Isla Boca Brava, Chiriquí Prov., Panamá

species	LTM	LTM	LTM	LTM	LTM
Bands	BO/R	BY/Y	RR/Y	YP/Y	BY/G
Alum #	066	067	068	069	070
Sex	?	M	M	M	F?
Age	Juv.	Adult (DM)	PDM (or old RCM)	RCM? ^{changing}	Ad? ^{maybe}
Net (tr)	2(2)	2(2)	1(2)	1(2)	2(2)
Time	8:20	9:30	3:15	3:15	4:15
Bag + Bird	42.5	37.5	34.5	42.5	39.5
Bird wt.	18.0	17.0	18.25	18.25	19.0
Blood #	LTM99-066	LTM99-067	LTM99-068	LTM99-069	LTM99-070
Itorn #	—	LTM99-067-H	LTM99-068-H unref for 9.5h.	—	—
Parasite #	—	99 LTM067	—	—	—
Tarsus	19.75	18.735	18.74	19.755	19.78
Nare to tip	6.24	6.235	5.22	5.225	5.22
Exp. Culmen	8.325	8.325	8.305	8.315	8.33
Skull to tip	12.49	11.45	11.455	10.39	11.46
Cap (Lxw)	none	8.315 x 13.54	10.395 x 18.715	10.39 x 19.765	2 tawny feathers
Wing Chord	68	70	70	68	67
Tail main	35.5	35	32	21 ^{in pin only 1 old rectrix}	35
Tail ext.	6.25	16.65	14.545	23.91 ^{only 1 feat.}	8.335
Ossif	—	—	—	—	—
Bp	0 scaly	0 ^{pin in} adjacent to	0	0 scaly	0 scaly ^{Pin}
CP	1	1.5	1.5?	1	1
Molt	some body	losing feathers all over - belly pin, 10 pin, 107	under tail covers cap, body, out	lots	belly pin only
Fat	3/4	0.5 ^{just starting}	n.m.	n.m.	1.5
Notes	didn't fly eye white	3/4 cap gone, tail worn, rectrices missing	Some blue back, some blk head, lots eye wh. Photo 100mm	1° just molting head in pin, blk face some, a few blue feathers	1 tick @ eye

DuVal,
E.H.

Journal - net records

19 July 1987

Isla Boca Brava, Chiriquí Prov., Panamá

Species	LTM	LTM	LTM	LTM	LTM
Bands	RO/B	YP/G	YB/Y	YG/G	GY/R
Alum #	071	072	029	043	073
Sex	F?	F?	F	F M	M
Age	Adult	Juv.	Adult (6y)	Juv. ^{almost} RC	Juv - RC
Net (tr)	2(2)	2(2) 5(1)	2(2) 2(2)	2(2)	2(2)
Time	4:15	5:15	5:20	5:20	6:20
Bird + Bag	39.0	40.25	41.5	41.5	42
Bird wt.	?	19.75	21.0	17.5	19.0
Blood #	CTM99-071	CTM99-072	—	—	CTM99-073
Hormone #	—	—	—	—	—
Parasite #	—	—	—	—	—
Tarsus	18.725	18.74	18.70	19.77	18.735
Nare to tip	6.24	6.235	6.24	5.22	6.22 (25)
Exp. Culmen	8.34 8.33	8.33	8.34	8.30	8.315
Skull to tip	12.475	12.475	12.495	11.46	10.425
Cap	tawny	none	none	red in 2 tracts; tawny spot under	same, w/ more pin
Wing chord	69	68	70	68	68.5
Tail main	36	36	34	35	34
Tail ext.	9.37 ^{wing}	8.33	11.45	10.42	9.37
Oss	—	—	—	—	—
BP	3	0 scaly	1 but scaly	0 scaly	0 scaly
CP	1	1	1	1	1
Molt	none	belly w/ some back	none	cap pin only	some belly
Fat	3/4	1	2	none	1
Notes		eye w/ 3 @ not much blood	missing 1 rectrix		

DuVal,

E. H.

1999

Journal - net records

9 July cont.

Isla Boca Brava, Chiriqui Prov., Panamá

species

LTM

VRV

Band

GR/G

* Same combo as #49!

Alum #

074

Sex

F

Age

Ad (BP)

Net (to.)

3(1)

Time

6:30

Bird + Bag

45.5

Bird wt.

20.75

Blood #

LTM99 - 074

Horn #

—

Parasite #

99 LTM 074

Tarsus

18.745

Nare to tip

6.25

Exp. Culmen

8.32

Skull to tip

11.465

Cap (LxW)

none

Wing chord

71.5

Tail main

35

Tail ext.

12.495

Ossif.

—

BP

1

no feathers +
red skin

CP

1

Molt

none

Fat

2

Notes

brood patch? Perhaps
a 2nd round of
breeders?

DeVal,
E.H.
1999

Journal

GENERAL NOTES

July

gallito de monte - local name for *C. lanceolata*

Francisco Delgado - 298-4587 office U. Panama Santiago
296-1725 home - Chitre

Pipeline Road

Neal Smith 212-8187

Karl Haufmann - birders
on STRI staff

General STRI # 212-8000

Continental Airlines PC 265-1544

Jessica Eberhart - Cambon coordinator

Maria Leone

note: STRI m. 408 for internet access

CONTACTS:

Jeffrey Braun

ee Duckworth → Scott Robinson (Illinois)

wra@mail.auburn.edu Doug Robinson (Vanderbilt)

Rob Christian from

ing; hormones in

a finches...

Natl History Survey

607 E. Pearlbody Dr.

Champaign, IL 61820

Joe Meisel - U. Wisconsin

habitat fragmentation

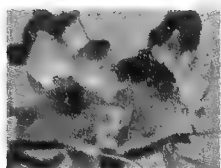
Annette Ayala

Virginia Morrell

Ancestral Passions 1995

Helmut Sisch - The dance of the jewel birds

Journal of Ornithology 100: 267-302



Laurie Jackerson
1279 Presidio Dr
Weston FL 33327-1734

954
349-9446

MARILYN HERRERA CASILLO

50 metros al oeste del Supermercado Pali
San Antonio de Belén, Heredia, Costa Rica

América Central

teléfono 239-2972

DuVal,
E.H.
1999

Journal

general notes

July

Fogden; Sarawak

Birds following moisture gradients
ecological stress

Gene Morton + B. Stutchbury - York U, Ontario

Ceinwen Edwards - Emlem's nest, Australian
Susan McRae

Cambridge (Nick Davies)

Possibility of a manakin hybrid zone

Burica Penn. - fauna from Golfito

Wetness? Too much rain bad?

Separated by wet forest?

Ideas about manakins:

1. Reasons for distribution: why are they "behaving like a marginal species"? (or are they?)
2. Hybrid zone w/ lineages?
3. Reproductive skew among males
4. General ?'s about the ♀s; flocking?
Group movements? Group composition?
Breeding choices?
5. Which males reproduce, & how?

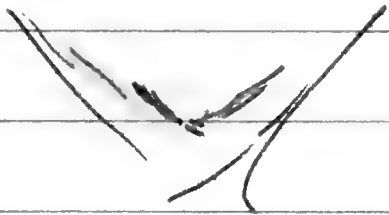
DuVal,
E. H.
1999

Journal

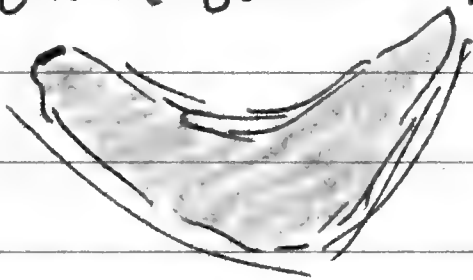
general notes

Sketches of fat deposits in foramen pit.

July

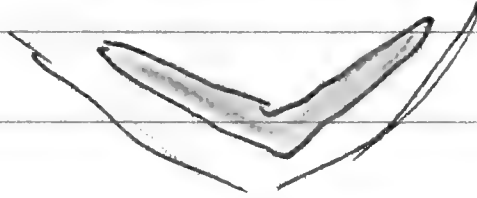


tr
Small line of yellow
fat in foramen pit

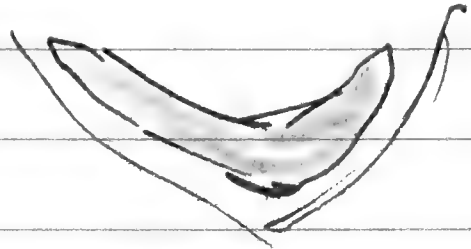


2

line fills pit area, not
quite level w/ foramen



1
line well defined,
complete, about
2 mm wide?



L.5
line thick

Emily H. DuVal

Field Notes

2000

General Index

- 1) Catalog EHD 004 - 009-2000
MW 001
- 2) Journal 13 Mar - 30 Jun

CATALOG

Isla Boca Brava: 7.8° N 66.5° E

~~004~~

Isla Boca Brava, Chiriquí Province, Panamá 15 March 2000

004

Chiroxiphia lanceolata adult male, "definitive male" plumage

found dead in mistnet from heat. Banded previously
in the day: #96, AY/Wal

17.25g

R testis 4.9 x 3.9 mm

L testis 5.9 x 3.6 mm

tissue collected: breast muscle, heart, liver,
syrinx, testes

Stomach empty; some matter in intestines (fruit?).
muscular bulge above syrinx

note: while trying to put a dot of superglue
in the beak, I spilled superglue down the
right cheek of the specimen. Never buy superglue
at the Ashby Flea Market! ^{voucher at University of Panama} MVUP 2113
tissue accessioned to MVZ; catalog # 179411

Isla Boca Brava, Chiriquí Province, Panamá 22 April 2000

005

Chiroxiphia lanceolata adult male, definitive ♂ plumage

15.25g

R testis 5.2 x 4.0

L testis 6.1 x 3.9

tissue collected: breast muscle, heart, liver,
syrinx, testes.

Banded #148 xxx; known to be an actively
displaying male. Killed in a mistnetting accident
at the "snake field" banding site, 22 April 2000.



Eastern Point of Isla Boca Brava, Chiriquí Province, Panamá

9 June 2000

30 May 2000

~~23 Apr 2000~~

alcohol
preserved

006

♂? Chiroxiphia lanceolata

chick

9 days old - hatched

~~23 Apr 2000~~

8.0 g - black band left leg

tissue taken (heart, liver, muscle, stomach); stomach empty

alcohol
preserved

007

♂? Chiroxiphia lanceolata

chick

8 days old - hatched

1 June 2000

7.5 g - unbanded

tissue taken (heart, liver, muscle, stomach); stomach empty

* 006 and 007 were found dead in the nest on June 9. Nest = K-25, probable mother = RBR. Chicks were bled on June 8.

29 April 2000

alcohol
preserved

008

♂? Chiroxiphia lanceolata

chick

7 days old - hatched 23 April

not weighed; found dead in nest E-2, probable mother = VRY 052
stomach empty

tissue taken; voucher deposited at Museo de Vertebrados,

Universidad de Panamá (MVUP 2114); tissue deposited

at MVZ (179412)

alcohol
preserved

009

♂? Chiroxiphia lanceolata

chick

6 days old - hatched 24 April

not weighed; found dead in nest E-2, probable mother = VRY 052
stomach empty

tissue taken; voucher deposited at Museo de Vertebrados,

Universidad de Panamá (MVUP 21146); tissue deposited

at MVZ (179413)

DuVal,
E. H.

2000

Catalog

Mark Westbroch

001

Isla Boca Brava, Chiriquí Province, Rep. of Panamá 22 April 2000

Artibeus sp.

probably Artibeus

9.0g

Head & Body 43.4 mm

Ear length: 12.0 mm

Total Length: 76.7 mm

Nose length: 9.3 mm

Elbow to wrist: 36.5 mm

Rt. testis: 5.4 x 3.2 mm

Lft testis: 6.0 x 4.5 mm

tissue collected: breast muscle, heart, liver

died in mistnet

MVUP 1600

tissue accessioned to the Museum of Vertebrate Zoology,

UC Berkeley

accession #
(13466)

catalog #

MVZ 194275

DuVal,
E. H.
2000

Permits: Collection: 52-2000
Export: 61-2000

13 March 2000

Journal

Isla Boca Brava, Panamá

3 March 2000

Observations of birds present on three transects of the North Island. (North, South trails, & "Main Street")

We walked up the North trail first, stopping to watch activity at Bee Tree. A surprising # of birds observed were banded. At Bee Tree I observed (DM) YO/Ral, RY/Ral (DM), & BY/Bal (RC). The males are definitely displaying!

I took the South Trail & saw YR/Pal (RC), who led a chorus of manatins who alarm-called at me from a display site near the second beach.

I Saw a nightjar and two Little hermit hummingbirds in my wanderings...

I attempted a list of vocalizations that we could make into a code for use in observations. I tried having us record 5-min bouts of behavior but even I couldn't do it.

DuVal,
E. H.
2000

13 March 2000

Journal

Isla Boca Brava, Chiriquí, Panamá

How will we be able to do
this on a large scale.

The vocalizations I noted are:

Warble

Wah ~~~~~

"Que Rico" ^ (toledo, hasta (vego...))

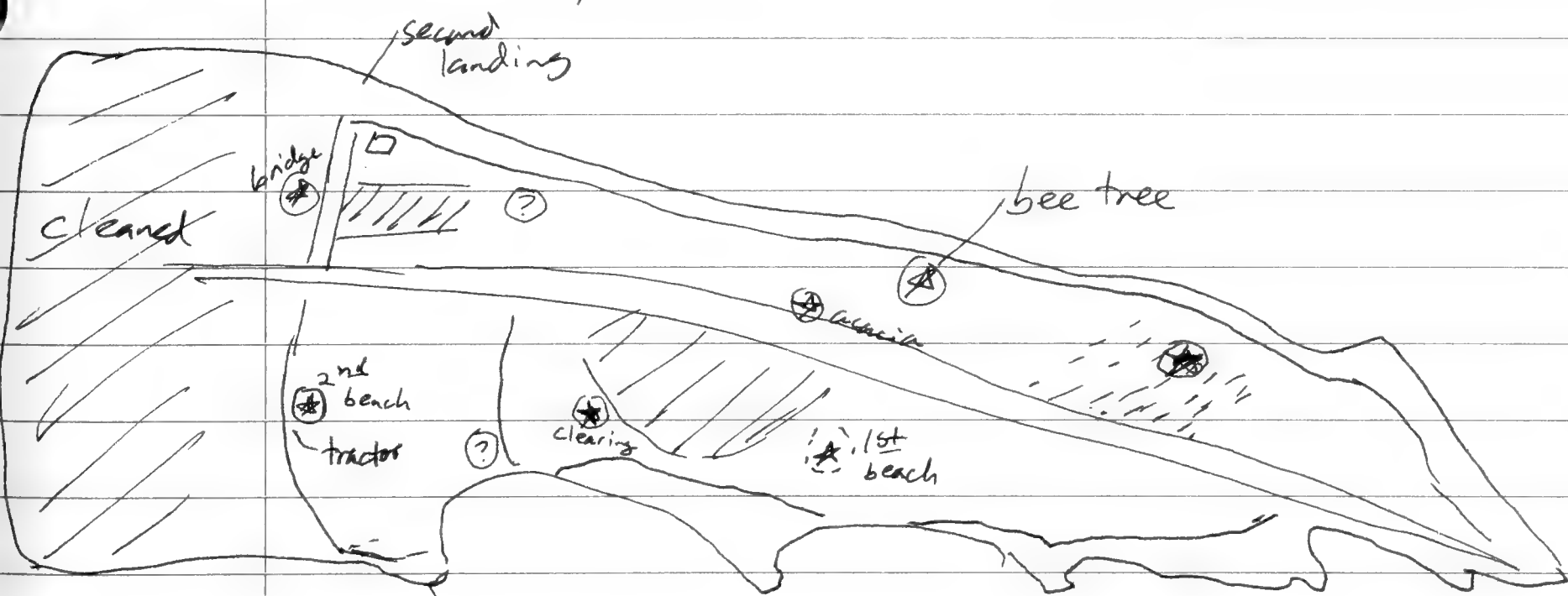
Salir Que Rico ~ ^

Dance Call ~~~~~

Pip /

Down whistle ~~~~~

Up whistle ~~~~~



/// = cleared
land

... = more small
trees left

Areas with circles are potential observation
sites. - less than I'd hoped for but...

The area past the 2nd landing
turnoff is much more cleared than
last year. Will Frank ever stop?

DuVal,
E. H.
2000

13 March 2000

Journal

So if the clearing continues...?

Apparently the island across from the point has plenty of LTM's as well: perhaps I could go there for a comparison with "cleared" land behavior? Certainly I should get there to see if the populations are mixing? What questions could I answer with only one year of data?

DuVal,
E. H.
2000

Journal

17 March
2000

14 March 2000

Isla Boca Brava

Mistnetting at the "bridge" site: we centered our nets on a lek just North of the bridge. As we set nets, we observed 2 males dancing for > 1 min. very near the trail.

It was a very good day for netting - we caught 12 manakins, many of which were Black Faced ~~or~~ DM. Other captures were 2 red-legged honeycreepers (male + female), 4 ♂ lesser seed finches, 2 rufous-tailed hummingbirds, 1 barred antshrike, + 1 northern waterthrush.

The manakins: DM IIII = 3

CB IIII = 4

BF I = 1

RC II = 2

G II = 2

Both G's were adults, + presumably female: one had the beginnings of a brood patch. I looked for the darker eye streak I had noticed in the long-tailed manakin specimens in the MVZ, but couldn't find one.

I did see one RC male who had

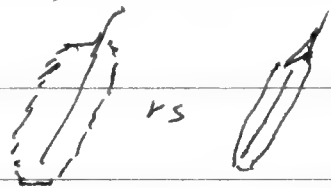
DoVal
E. H.
2000

14 March 2000

Journal

Isla Boca Brava, Chiriqui Prov., Panama

tail feathers that seem to be juvenile morphology (# 79): more symmetrical, broader,



We took a break at midday for lunch + to wait for the cooler afternoon. I walked back to spin down plasma samples + stopped to watch 2 DM's dancing across from acacia near the main street path. Moved off as I approached

thought for the day: how would you know if manakins were lekking? Requires male aggregation, female choice, (no paternal care), non-resource-based, + ... It seemed like several pairs of males were displaying within a relatively small area near the second beach - could Dave McDonald be right about perches within earshot constituting a lek?

I talked with Frank about money last night, and he

DuVal
E. H.
2000

14 March
2000

Journal

Isla Boca Brava, Chiriquí Prov. Panamá

gave us a reasonable price (though our ranches are falling down): \$10.00 a night for both. He also graciously pointed out that I could rent a house in Boca Chica for \$30 a month. Savings of \$250/month plus the chance to mix with locals sounds good to me. The field assistants visibly balked at the idea even for short-term, though they saw next to nothing of Boca Chica. KM's Insisting that it would be more dangerous since we wouldn't know any of our neighbors. Why wouldn't we? Sounds like a good reason to get to know people...

DuVal,
E.H.
2000

Journal

15 March 2000

Isla Boca Brava, Chiriquí Prov., Panamá

March 2000

We continued netting at the bridge site, and closed the nets after catching AI #103. AI #95^(DM) hit the first net when it was in the late morning sun, and was dead by the time we found him. We caught 17 birds in all.

DM ~~III~~ III = 8 new

RC I = 1 new

^{NOTE}
Gorsl.T ~~III~~ II = 7 new

BF I = 1 recapture

I taught Mark + Kat how to prepare hormone samples, and then skinned #95. He's got an unfortunate tear in the skin of his neck (+ back), and when I went to seal his mouth shut with a drop of superglue, the cheap Ashby Fleamarket stuff spilled all down the feathers of his cheek. I tried ethanol to remove it, and only succeeded in making it white. I collected tissue in ETOH and froze it, including syrinx and his LARE testes. Definitely a breeding male...

A Caluromys possum has electrocuted itself on the power lines just above the hostel: its teeth are locked around one wire + its tail wound around another.

DuVal,
E. H.
2000

15 March 2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

Mark and I took turns throwing stones at it but (despite several good hits) could not dislodge it.

The bycatch for the day was:

3 rufous-tailed hummingbirds

1 white-tipped dove

1 yellow-olive flycatcher (Tolnomyias sulphureus)

1 black-hooded antshrike

1 male barred antshrike

1 female lesser seed finch

1 Swainson's thrush

1 Great-crested flycatcher

The Swainson's thrush was obviously migrating - its furcular pit was overflowing with fat, and there were fat stores in its wing pits as well.

Other banding notes: one female had small scars on her breast, as if from puncture wounds. Insects? Another (#102) had small red dots on her breast.

DuVal,
E. H.
2000

Journal

16 March 2000

Isla Boca Brava, Chiriquí Prov., Panamá

March 2000

We netted this morning at the bridge site until 10:15 or so, and then moved to the second beach site.

We set nets after lunch and waited until 2:30 to open them.

Tallies for the day:

	<u>Bridge</u>		<u>2nd Beach</u>
	<u>N</u>	<u>R</u>	
DM	II		III
CB			I
BF	II		
RC		I	I
G/tawny	III	III	II

in all: 5 DM's, 5 ~~3~~ other male phases, and 9 females (or green phases). The recaptures (3 ♀, 1 RC) were all banded in 1999. One was ♀ # 74, formerly banded VRV. We changed the bands to ARV because 2 birds were marked VRV last year. One mistake fixed...

At the second beach site, we captured two white-tipped doves. From one of these, I took a large # of tubes of blood. I split these into three treatments, of 5-6 tubes each (approx. equal volume). One set of tubes was ~~frozen~~ ^{chilled}.

DuVal,
E.H.

2000

16 March 2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá
immediately (on our somewhat melted ice
packs). The second was chilled after 2
hours. The third was never chilled. All
were spun down 4h. after the blood
was taken from the bird, and samples
1 + 2 were frozen immediately after
the plasma was extracted. The third
will be frozen after 6½ hours.

I want to compare the degradation of
Testosterone with time to estimate how
my samples will be affected by the poor
refrigeration available.

Saw a variegated squirrel near the
2nd beach. The howler troupe has
many babies - at least 4-5 YOTYr. in
the tree outside our huts last night.

Bycatch for today:

- 1 Rufous-tailed hummingbird
- 2 White-tipped doves
- 1 buff-throated woodcreeper
- 1 ♂ lesser seed finch

the seed-finch had brown edging on the
undertail coverts + lower belly; a

DuVal,
E. H.
2000

16 March 2000

Journal

Isla Bora Brava, Chiriquí Prov., Panamá

little also on the head; this coloration is not shown in Birds of Panama for either sex. I took a photo (print film) to record it.

I'm more than a little worried about running out of supplies: I certainly didn't expect such success! (not that I'm complaining). We've caught as many birds in 3 days as I did in a month last year. I'll have to have Eileen send more capillary tubes, at least!

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

17 March

2000

Second Beach - mistnetting 7:10-11:00

weather: sunny & hot

95° @ 10:44

2:15-4:45

DM ||||| (2 recap)

CB |

BF | (recap)

RC ||

sk. T ||||

G ||

total = 19 (16 new, 3 recaptures)

bycatch:

Amazilia t. tzacatl rufous-tailed hummingbird

(2) Atalotricus pilaris wilcoxi pale-eyed pygmy tyrant

Leptotila v. verreauxi white-tipped dove

Vireo f. flavoviridis yellow-green vireo

Repeated the dove experiment

Sample

Dove B-1

Stored on ice @ 11:04

Dove B-2

3:04

Dove B-3

never

} all spun 6h 45min after
being drawn
(B-2 slightly longer 7h. 22min)
& frozen immediately.

DeVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriqui Prov., Panamá

Comments on captures:

CSF was listed as CB last yr,
recaptured 3/17 in DM plumage.

3 March 2000

21 net hours at second beach

DM || = 2 (1 recap)

CB || = 2

BrF 1

Total = 11 (incl. 2
recaps)

RC 1 (recap) -

T 1

G |||| = 4

Bycatch:

Chestnut short-tailed bat (Carollia castanea)
(sketches on back of data sheets)

(3) Xiphorhynchus guttatus nanus Buff-throated woodcreeper

(2) Thamnophilus bridgesi Black-hooded antshrike ♀ + ♂

(2) Catharus ustulatus swainsoni Swainson's Thrush

Oryzobus angolensis ochrogyna Lesser seed finch ♀

Thamnophilus doliatus nigricristatus Banded Antshrike

Tolmomyias sulphureus flavolivaceus Yellow-olive
flycatcher

Ramphocelus melanoruficentis long-billed
gnatcatcher

Observations from the "Central Clearing"
site where we set our nets for
tomorrow:

D. Val,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

2:30 - 3:30 pm

many sets of DM's displaying in
close proximity to each other

unb. DM butterfly flight to ♀ BBY

DM — B/Yal displaying with unb DM

* this had to be BBY, banded
as a CB last yr.

"Acacia" observations 3:30 - 4 pm

PY/P ♀ (G) = thought she
was PY/V... hanging out near
displaying ♂♂.

BY/Ral — green, no red cap,
with black wings

2 unb. DM's duetting

1 BF or CB ♂ alarm calling at us.
unbanded.

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí, Panamá

March 2000 Mist-netting at central clearing.

Captures: DM IIII (1 recap)
CB III
BF
RC III (1 recap)
S.E.T. I
G I
= 13 total (2 recaps)

bycatch: 2 Yellow-green vireos
Long-billed gnatwren

*** Found my first active nest! I was observing a lek in the afternoon, toward the bottom of the hill, & looked up to notice a nest about 2 feet from my face. It's small, suspended from the horizontal fork of a sapling about 2 feet off the ground. There was 1 egg, white with brown speckling. I saw an unbanded female nearby, but not on the nest. I took photos on the first roll of print film. This is nest "E-1."

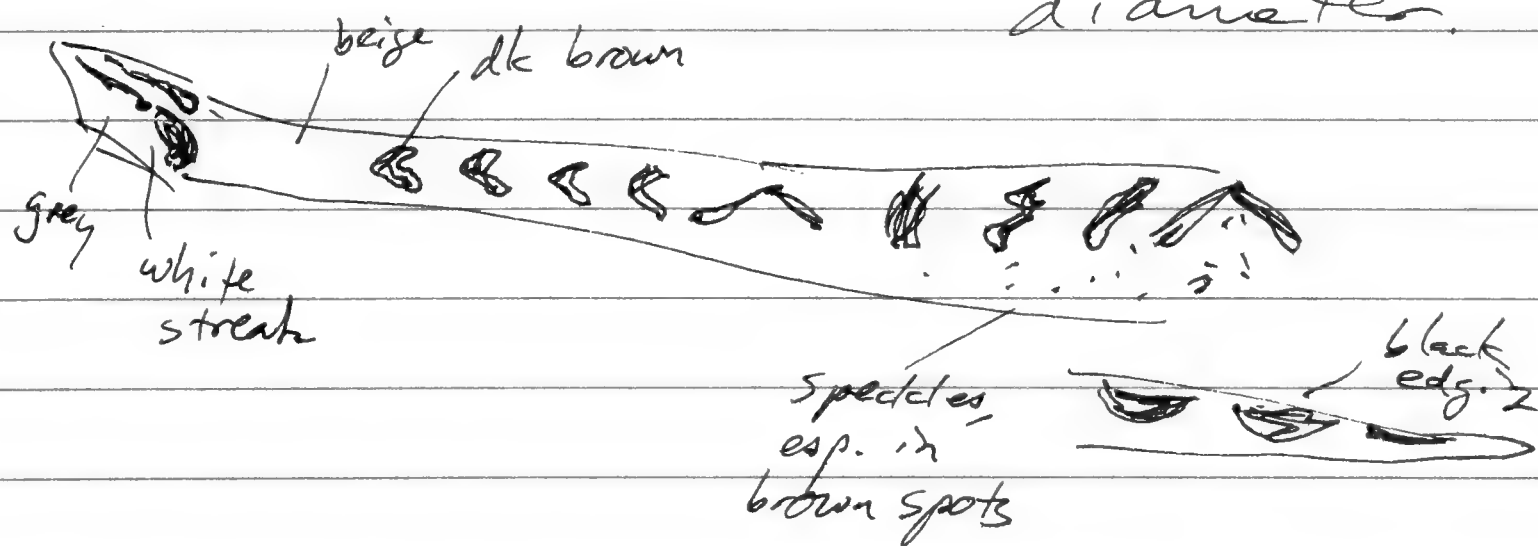
Dullal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

20 March 2000

Observations at 4 lek sites today. Mark had the day off. I saw a tamandua sleeping (Tamandua mexicana) in a tree near Enrique's house as I hiked out in the morning. While observing ~~the~~ manakins at Central Clearing, I saw a large snake - only about $3\frac{1}{2}$ feet long, but VERY thick. I sketched a careful picture on the back of my observation sheet, + Frank says that it was a Bushmaster (Fier de Lance). It was $3-3\frac{1}{2}$ in diameter.



Odd observations

DuVal,

E. H.

2000

Journal

Isla Boca Brava, Chiriquí, Panamá

March 2000

We took the day off from fieldwork to travel to David for email & errands. Eileen agreed to send supplies, though I'm not sure exactly what she'll be able to mail due to customs regulations. My requests were written in excited, rambling style, so I'll have to see what she got from it. She says I was a finalist for the Beim Fellowship but didn't get it, and that I'll probably get \$4000 from the Integrative Biology departmental fellowships. No word from the other grants yet.

Tyrone Hayes answered my questions about sample purity by saying only that he would use a different needle for each sample, not what the consequences of my present predicament would be. I have only 8 or so insulin syringes, so I've been using one for all the samples, rinsing 3x with DDH₂O inbetween samples. I'm not quite sure what to do...

Dollal,

E. H.

2000

Journal

Isla Boca Brava, Clinique, Panamá

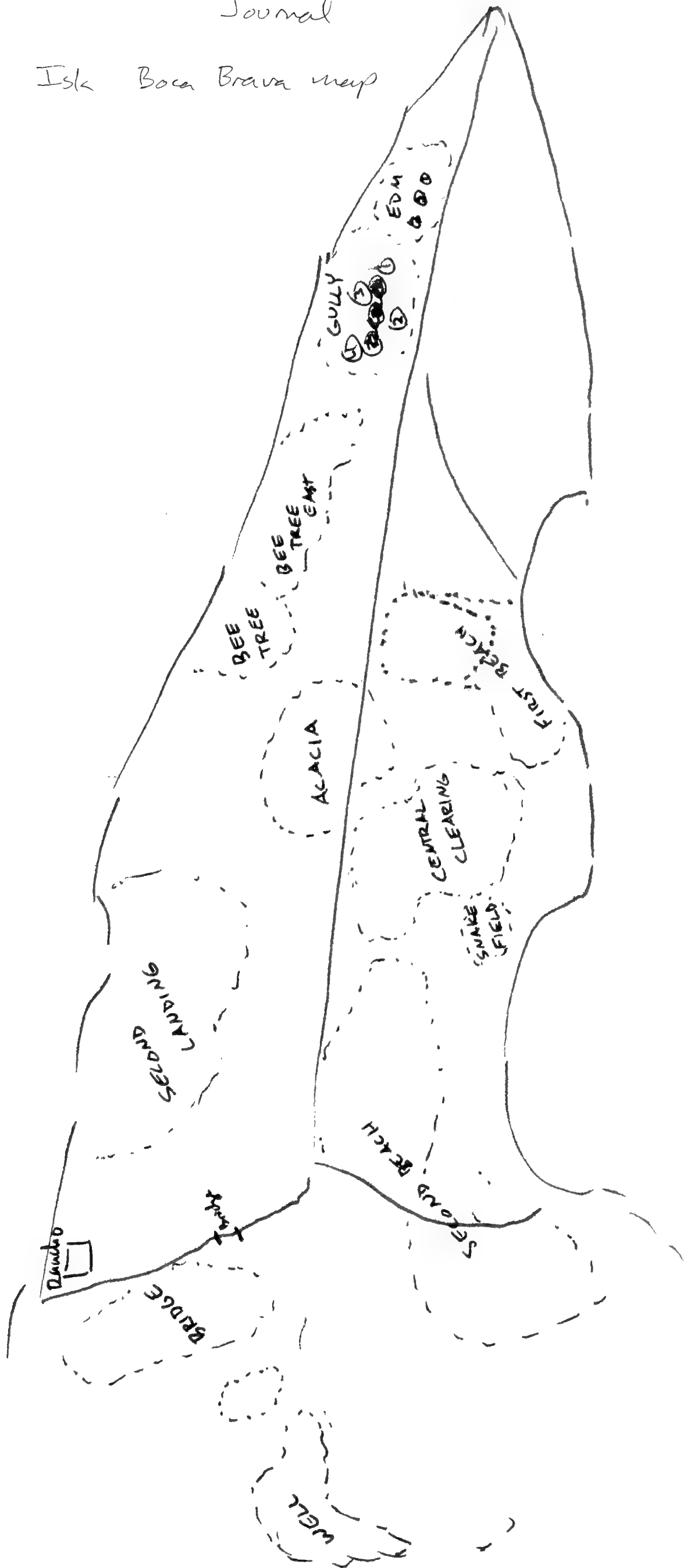
22 March 2000

All hormone samples after this day were taken by breaking the centrifuged capillary tube at the plasma/red cell layer and blowing the plasma into a clean, empty vial. Plasma samples are frozen in liquid N_2 immediately after separation. The clay plug in the capillary tube's bottom is pierced with the same needle used to draw blood from the bird, and the red cells are blown out into two separate vials with Longmire's Solution (LMS). One vial is stored in liquid N_2 , the other at ambient temperatures.

DuVal,
E. H.
2000

Journal

Isk Boca Brava map



[illegible]

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí, Panamá

3/31/00

First Beach - 2 6m nets in the afternoon

BO/Yal 045 : BP 1 CP lack (w/egg?)

Fat 1 eggs 5 Ticks 0

Captured at 2:30

nest must be in the area...

released at site w/o wt. or meas.

(X)R/Val 199 : DM captured at 3:15, in the first net. I watched him hit the net & took blood 20 min. after capture, but he escaped after I had bled only one wing, & incompletely banded him. AAA! But: he has been distinguishably banded, we have a genetic sample, & we took a blood smear.

Kat & Mark are continuing to band at Central Clearing, and we banded there this morning. We captured ^{& banded} WA/G, the female who is brooding on nest E-1. It was a good day for target netting, despite my butterfingers.

I checked nest E-2, and there are still no ~~chicks~~ eggs, though the nest looks very complete. Perhaps a predator has already emptied the nest or it was an early clutch? Mark has reported seeing Bledyings near Bee tree.

D. Val,
E. H.
2000

Journal

7 April 2000

Isla Boca Brava, Chiriquí Prov., Panamá

Notes on display:

Slow flight is performed by one or two birds - usually two after a QR bout & before or after dancing; by one bird after the partner leaves & the remaining male is finishing the courtship. Males fly with neck outstretched, head slightly down, and crown flared, fluttering laboriously between perches and frequently passing close to the female. Male(s) often give a "pip" call when landing and quickly leave the perch they have arrived at. In dual display, the first male usually "pips" on arrival and both give a coordinated down-whistle when the second male lands nearby.

In solo slow flight today, ^(as well) I observed for the first time a rattling noise that was only sometimes heard as the male passed the female. (Other passes were silent). It was the faint, fast click of a bat hunting or a heliconia blowing in the wind. Perhaps this is one of the mechanical marking sounds?

DuVal,
E. H.

2000

Journal

Isla Boca Brava, Chiriquí, Panamá

7 Apr can't

To my knowledge, no mechanical sounds
have previously been reported in the
display of lance-tailed manakins.

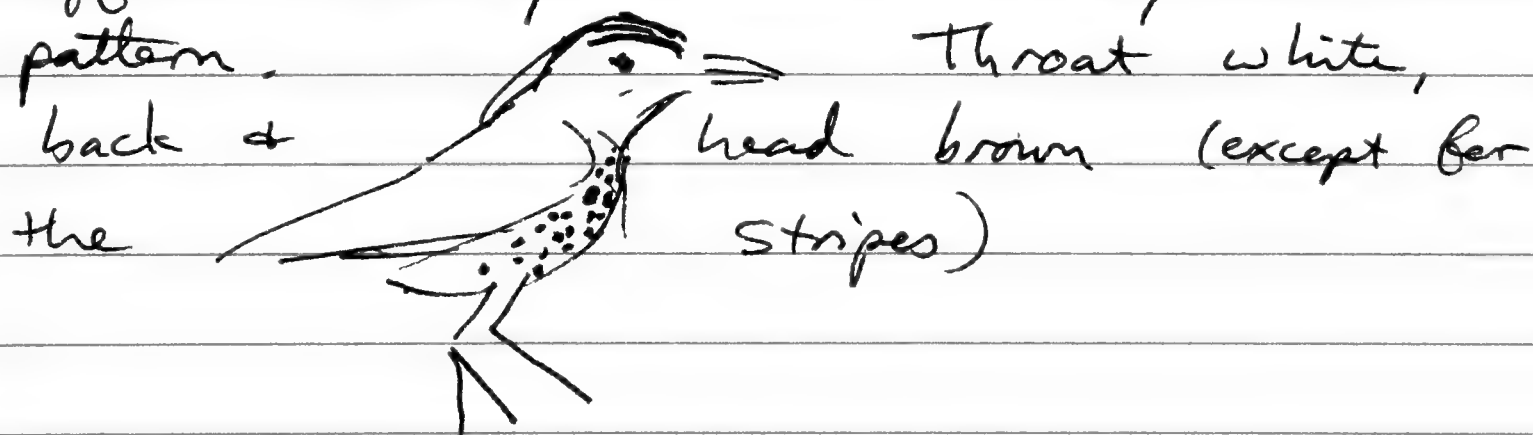
DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

April 2000

We spent the day doing observations at 9 display perches. There are many Swainson's Thrushes in the area, calling, fighting, and flitting part like manakins during observations. During my last watch at Acacia, a bird walked up to me (& away) that looked like a Northern Waterthrush or Ovenbird, but didn't have the center orange crown of an ovenbird, and had distinct black stripes (3-4) on the top of the head, unlike N. or Louisiana waterthrush. Legs were pink and long, breast was white (not buff) and spotted ^{with spots of} ~~near~~ nearly circular pattern.



Notes on nests:

Stiles & Skutch A Guide to the Birds of Costa Rica lists the incubation time of manakins as 18-21 days, ~~and~~ with an additional 13-20 days in the nest for the young.

DuVal
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

8 Apr 00

Dance Displays

- thick-billed euphonia incident
- ♀ + to perch, changes direction:
cartwheel of ♂♂ changes direction, too.

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Isla Boca Brava, Chiriquí Prov., Panamá

8 Apr cont

For the lance-tailed manakin, Stiles + Skutch
say:

"Nest: A small, shallow cup of grass and leaf fibers, slung between the two branches of a low, horizontal forked twig. Eggs usually 2, buffy with reddish-brown spotting, mainly in a wreath around large end. August - September (in Panamá: no Costa Rican record)."

Our work already contradicts this, as lance-taileds are clearly nesting in April...

The nest is an open cup made of plant fibers + fastened to the ^{horizontal} fork of a sapling or small tree with cobwebs. Dead leaves are ^{usually} hung on the outside of the cup. 2 eggs, as described.

We have noted a few peculiar things about the 12 nests found so far:
Nest E-4 was found with one egg and one chick (probably 2-4 days old, says Kat). When the nest was

D. Val

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Journal

Isla Boca Brava, Chiriquí, Panamá

Apr can't

checked two days later, there was only one chick remaining (and he was larger than the previously observed individual, i.e. it wasn't the ~~egg~~ egg, hatched.) There is no sign of the egg below the nest. What predator would have eaten the egg and not the chick? It seems like the egg would have to be removed by the chick or the mother. Is it possible that a brood parasitic bird targets manakins? Nest K-1 has 2 eggs, but one is noticeably longer and whiter than the other. I'm not sure how much within-clutch variation there is.

Nest E-3 has an egg with a tiny hole in it, and there was an ant on the shell. Either something broke into the shell, or the chick is hatching now.

Both white-tipped dove nests that I have found have hatched 1 egg & one empty. The dove nest at bee tree has mostly fledged

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí, Panamá

Apr cont

its nothing, as I found out
the day, I was out by 21.10.
and I was out by 21.10.
The day, I was out by 21.10.
The day, I was out by 21.10.

There were no 1941 + 1942 + the
history of the company.

I'm not sure why I didn't go
any further. The school left before the
rest were ECU. I don't know what happened
with the other kids.

On 11 April I found only a chick in nest E-7, which had been found on 10 April with one chick and one egg. I located the egg in a nest box below the chick and cracked it into a vial for storage in liquid N_2 . There were no embryos visible. The yolk was almost white, with red and also green. As of 15 Apr we've still been unable to locate the female associated with this nest.

DoVal,
E. H.

2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

4 April 2000

Weather: raining until 7:30 am, then clearing until ~ 6:30 pm. Rain again at night. Our rancheros both leave and Kat and I slept in cuggy beds.

We netted at Bee Tree, surrounding nest E-3 with nets and captured an unbanded female with a TP going toward the nest. She is WRW now, and we'll confirm that this is E-3's baby in the next few days.

We moved the nets to site (2) (adjoining CC (B)) for tomorrow and spent the afternoon working on a release cage for the telemetry birds.

4 sides, one 1/2" chicken wire, fitted one of 1/2" chicken wire, the wire with thread and ... still from.

I'm considering covering it with a cloth, but Kat + Mark object for reasons they can't think of.

I finished banding NOB, the baby in nest E-4. His

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Isla Boca Brava, Chiriquí Prov., Panamá
tarsii were long enough ($\sim 12-14$
days after hatching), though barely.
I still need to take a little
more blood from him to have a
really good sample. I didn't see
the mother today.

5 April 2000 Weather: rained all night. Overcast
+ humid in the AM, clearing
to sunny by late morning.

We netted at the Central
Clearing / Second Beach (2) site,
concentrating around display perches
where I've seen two unbanded
males displaying. We caught 17
birds, of which only 8 were new.
Not bad... There were 2 unbanded
DM's caught, as well as several
DM recaptures. I hope that we
caught the ones we were trying
for! The unbanded females we
caught all had brood patches of 3,
and two of them regurgitated invertebrates
when taken from the net. One
female did this at the banding
station, so we collected the food +

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2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

15 Apr cont

found that it consisted of 3 spiders of various sizes. I preserved the largest in Ethanol (and accidentally dropped the other two). Could they be feeding spiders to their babies???

How interesting. We saw females flying + fighting in the spiny palms near Bee Tree yesterday. Perhaps they were squabbling over spiders and not nesting material (as I'd thought at the time).

We're taking the day off tomorrow, but hiking with Danièle to parts of the island as yet unknown.

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí, Panamá

April 2000

Mistnetting tragedy: someone didn't understand someone else, & two 6m mistnets were left open all night. DM XXX was killed, as was a bat whose exact species remains a mystery. Both were prepared as specimens. We also had 1 RC, 4 other bats, & two antshrikes in the nets, & all of these birds lived.

We continued to net there, & attached the first lance-tailed manakin radio transmitter to BO/Yal. She's frequency 151.032. So far so good... She flew away very well. A great-crowned flycatcher & fledgling yellow-green vireo did not fly so well, inexplicably. For the most part, it was a really bad day.

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E.H.

2000

Journal

Isla Boca Brava, Chiriquí, Panamá

4 April 00

weather: cool (70° @ 09:00, 82° @ 12:00)

overcast, rain at 5:00pm for ~ 15 minutes.

wind 0-1 blue sky 0%

We set strategic nets around E-10 & M-6 nests in the second landing (aka dead fish gully) area. The nets around E-10 immediately caught an unbanded greenie, whose alarm calls drew a second unbanded G. She circled me, fluttering at about shoulder height and never perching - very unlike previous warbler behavior that I've seen. She soon hit the net, and it was later confirmed that she's the mother of NGB #224, the baby in ^{around G at} E-10. We also caught M-6 very soon. We haven't yet confirmed that she's brooding on M-6. We also caught one unbanded DM. ^{one} down!

Mark & I moved nets to the main display area of second landing, where I found an antshrike nest with chicks. I'm not sure whether it's barred or black-hooded. We caught 1 new green ♀, & recaptured two more. One of these, ABY, was radiotagged with transmitter 151.052. She wasn't quite as active in the release cage as BOY had been, but

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Journal

Isla Boca Brava, Chiriquí, Panamá

flew away with no problems.

We split up to stake out nests & do one observation each in the afternoon. I was at Bee Tree, which I really think we should try watching at all perches simultaneously - the birds just move perches when observed. I found one new nest under construction, & noticed that E-3 was completely unattached on one side, leaving the 12-day old baby JUST about to fall ~~climb~~ out. Against my evolutionary upbringing, I reinforced the nest with guy line so that it would hold the baby until fledging (after all, I may have weakened the spiderweb supports as I scooped out the baby to take blood...).

While staking out nest E-2, which now has 2 chicks, I saw a male black-headed antshrike perched a few feet above the nest. He cocked his head several times, looking at the nest, and was flying down to a lower perch by the nest when a female manakin mobbed him and drove him away. It's

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Journal

Isla Boca Brava, Chiriquí, Panamá
not conclusive evidence, but suggests that antshrikes may be nest predators of manakins. There are certainly enough of them on the island to pose a threat to nest success! I didn't see the female's bands (or lack thereof).

April 2000 Weather: very cool AM, overcast, partly sunny, warm, rain after 4pm
We continued to run far nets near the second landing display site, but only had recaptures. Kat saw a new snake - ~4 feet long, yellow (faintly green) with black edging on scales and black dorsal splotches every 4" or so. the ~~tail~~ head was relatively small, and it was about 2 1/2" in diameter. It was seen climbing among small saplings - I'm sure it would have no problem reaching manakin nests!

I saw my first copulation during a watch at second beach, known as "copulation station" these days. AYY and another DM performed the slow flight display & danced for about 5 seconds with the female on the

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2000

Journal

Isla Boca Brava, Chiriquí, Panamá

25 Apr cont

dance perch. The second male (AAP? AYP) left, and AYP continued to do the solo slow flight, with the faint wing rattle that I first observed at the Well site. The female jumped rapidly back and forth on the dp, & sometimes followed the male as he flew past the dp. AYP frequently broke off his slow flight to chase an unb RC that kept approaching the perch. AYP mated w/ the unb G, who stayed on the dp & raised her tail, head forward. This lasted a few seconds, & then AYP broke it off to chase the RC. ♀ remained on dp & didn't preen as usual after copulation. AYP resumed slow flight, but eventually the ♀ left. She may have returned later, as I saw AYP & bDM displaying (SF-2) for an unb G 10 minutes later.

Today was the first real day of the rainy season. Rain cut short my radiotelemetry at first beach - BOY is still in approximately the same place. I made a rain gauge from an empty capillary tube case, & collected 2 mm of rain from 18:30 - 21:00.

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E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

25 Apr cont

My present concerns about the research are: our measurements do not seem to be consistent enough between days + observers to be truly reliable. It's a little late to worry about this 234 birds into the project, but I'm worrying anyway. "Skull to tip" seems particularly unrepeatable, but even important standards like tarsus are often more than a little off. I guess I need to pull out one of the specimens + have us re-train.

April 2000

weather: Sunny + clear, cloudy in afternoon but no rain. Still + hot at night. Kat had some problems with the telemetry equipment today — she says that for a while she couldn't even get the static from the "gain" that's the minimum of functioning equipment. It started working again when I looked at it, + was fine in the afternoon. We did observations otherwise, + teamed up to all observe at Bee tree simultaneously.

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2000

Journal

Isla Boca Brava, Chiriquí, Panamá

26 Apr cont

in the afternoon. (My solution to being terribly frustrated with the frequency with which those birds move around). It was a bit of overkill, but it worked. Nest E-5 hatched about 2-3 days ago, & E-12 just got its first egg. I radiotracked ABY until I actually saw her, preening on the East side of Dead Fish ~~Cott~~ Ravine, in the afternoon. I pinned BOY down to the same area, but then quickly lost the signal altogether (Kat had the same problem). I think she's just going ~~some~~ ^{somewhere} out of range, quickly. I picked up five new ticks during the Bee Tree observations.

Other highlights: I saw a pair of red-legged honeycreepers copulate this morning!

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E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

27 April 2000 Weather: overcast & still, sun early in the morning.

Mark radiotracked BOY to her nest, at last. She was precisely where we've been finding the signal, but her nest was about 3m high — the highest manakin nest site yet. In the afternoon we put my compass on a stick & used the mirror to see that she has one chick, approx 4 days old. We'll try to bleed/band her at 12-14 days old so that we don't have to climb up there twice!

We did watches at Acacia ②, Second Landing ②, Bridge ②, CC ①, Second Beech ①, EDM ①, and Mark explored the possible perches between Bee Tree & Second Landing to no avail. Kat found five nests, two with eggs, and I found one more with one egg.

I took my time in the morning, copying the map that Frank gave me yesterday so that we can plot our points ^{relevently} 1:2000. Scale = 5.

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Isla Boca Brava, Chiriquí Prov., Panamá

27 Apr. cont

I located ABY to sight in the afternoon, & tried to stake out E-5 but got nowhere. Yesterday the unb DM who reins at that perch (BTE ①) chased a banded green who I would have sworn was the mother of E-5 - twice. He seemed to generally be on a testosterone high. I hope I can catch him and take a hormone sample!

Tomorrow we net at bridge.

8 April 00 Weather - 82° at 8:30 am; overcast, then partly cloudy/sunny. ^{~20 min. of light rain at night}
What a day! We caught 15 manakins ^{right} in the last two net checks, after Kat had left us to stake out a nest. Aaa! Mark & I were very late for dinner. We caught a total of 30 lance-taileds, 8 of which were new (& 2 new DM's!). I watched an unbanded DM escape from the net, so there will still be work left there for tomorrow. The bycatch today included a crimson-backed tanager, little hermit etc., and we saw masked tityras near 2nd beach. (first sighting this year).

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Journal

Isla Boca Brava, Chiriquí, Panamá

OBSERVATION OF A DM AT A NEST:

28 Apr. cont

Kat was staring out nest K-15, which is in a short shrubby tree. She observed a definitive male approach the nest deliberately, hopping from branch to branch as females do when they approach a nest. He landed on the edge of the nest for a moment + looked at the chicks (2) who were begging to him. After a few seconds, he flew away. He didn't feed or anything of that sort, but... interesting. This nest is in the second landing area. Kat did not get the male's band combo.

Kat ran telemetry this morning - BOY was on her nest + ABY apparently was moving around to displaying males. In the afternoon, BOY was at CC (+ I got no signal at all from first beach - I think the rough terrain is just frequently too steep for these transmitters to be picked up).

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Isla Boca Brava, 5 Chiriquí Prov., Panamá

To date, 8 nests have fledged or survived to the point of bleeding & landing. 11 have failed, and another 30 or so are under observation.

<u>Nest</u>	<u>Mother</u>	<u>Babies</u>
E-3	WRW (212)	NNY (234)
E-4	YVY	NCB (211)
E-7	RAG	NYP (221)
M-1	PYP	NAY (228) NYA (227)
E-10	YPW (231)	NGB (224)

29 April weather:

I'm reviewing behavioral obs. data sheets as I wait for "the guys" to finish repairing our cabins. I'm colorcoding interactions that I'd like to pick out for statistics later on:



Copulation



Dancing between birds w/ known bands
(unk. incl.)



Dancing - unknown bands



QR bout - known bands



Dominance interaction - known bands



SF for ♀

I'm putting a box around each appropriate section on the original data sheets

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Journal

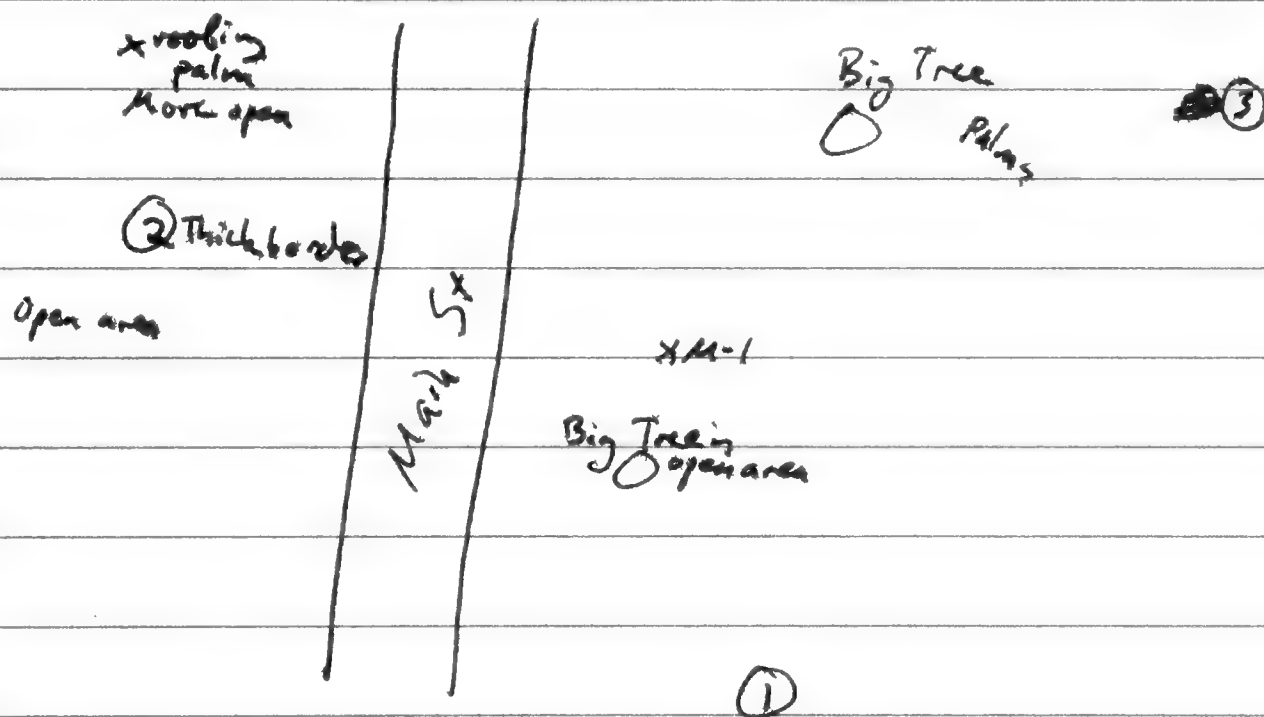
Isla Boca Brava, Chiriquí Prov., Panamá

124.

29 Apr cont

Notes on Acacia lek until 4/29/00:

There seem to be three main dancing areas at Acacia. One is across Main Street from the large central tree ②, one is East of PYP's nest ①, and one is to the North of the main tree ③. #3 may actually be 2-3 dp's.



- ① I've heard activity here, but it seems sporadic. I have yet to do a successful watch at this perch. 2 hrs total.
- ② I watched this for 1 very successful watch: GRA (DM) + — R (DM) consistently displaying together. Mark tried a watch & got absolutely nothing. 4 hours total.
- ③ Still haven't found a good place to sit. YPR, GRA, & GGR (DM's) have displayed here, as has WRY (RC). Also YAR & ~~BR~~ BR (DM), WAY (CB), AR — (RC), ROY (DM), RRB (DM), AAR (CB) 6 hrs. total. Need to do further obs: still don't know for sure who's here.

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2000

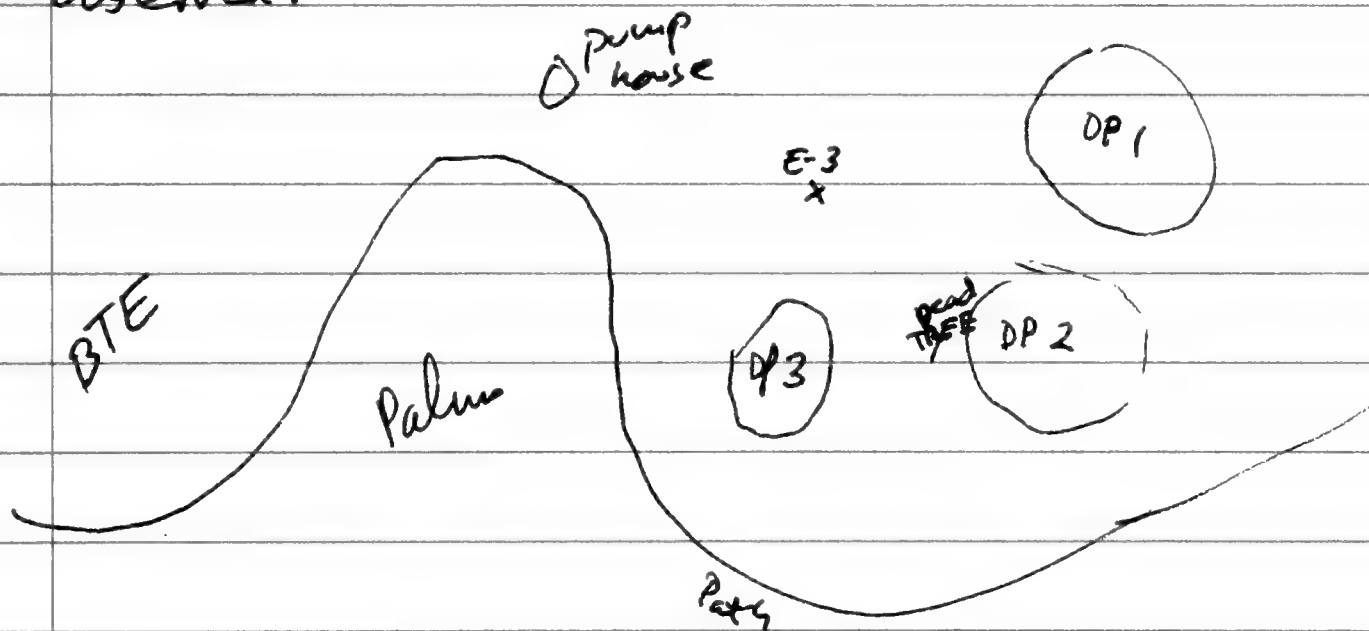
Journal

Isla Boca Brava, Chiriquí, Panamá 22 hrs.

29 Apr cont.

Notes on Bee Tree lch until 4/29/00:

Bee tree has 3 main display areas, & the birds rotate freely among them. We did a 3-person watch, scattered around the perches, on 4/26/00, and saw the same birds at each place (though it wasn't incredibly busy that day.) The birds very commonly switch perches when observed.



- ① I once recorded YBR (RC) dancing alone here; last yr he was listed as a ♀ w/ bp.

RYR (DM)

BYB (RC)

--R (DM)

6 hrs. total

YVR (DM)

- ② YVR (DM) displ. w/ ^{RYR}~~YBR~~, WAY, ROY

ROY (DM) displ. w/ YVR, whi

WAY (CB) displ. w/ BYB, ROY, YVR

BYB (BF) displ. w/ WAY, ~~YVR~~

BYA (RC)

RYR (DM)

YPY (CB)

Most birds from 1 watch, which may not have been at ②.

4 hrs total

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2000

Journal

Isla Boca Brava, Chiriquí, Panamá

Apr cont (3)

RIR (DM)

BYB (RC)

YPY (CB)

~~(R)IR (CB)~~

This perch was most successful during our 3-person watch, but it can be hard to see bands

12 hrs. total

note: totals include the repeated 2-hr watch @ each loc.

Birds seem to exchange freely between sites; this "1ch" is part if not all of a cohesive whole.

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E. H.
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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

29 Apr cont

Notes on Bee Tree East lek area until 4/29/00:

This display area is across the spiky palms from Bee Tree, & extends up the hill toward the Pump House Trail. There are at least 3 display sites, though we haven't done any watches at the third. The dominant male at ① is definitely unbanded. We caught RYR & — DU flying toward ② in a net placed very near the perch, so that it at least may be part of the Bee Tree lek.

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E.H.

2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

9 April 2000

Weather: Sunny, hot, partly cloudy, rained very briefly at Bridge in the am (not at the restaurant)

I stayed back to oversee the repairs. Frank's workers were making to the cabins, and Mark & Pat opened the nets at Bridge. It seems that catching RBB put an end to activity at the lake for at least a day. We caught a slow trickle of birds - 9 for the entire day. During the ~~was~~ mid-day break I went to check/stake out nest E-2. After an hour of watching for the female, I looked into the nest and found both babies dead, with ants beginning to eat them. It wasn't clear whether they'd been killed by ants or starved to death, but the bodies were nearly intact and showed no sign of trauma. I collected them and stored them in ethanol after removing heart & liver tissue & freezing those in EtOH. Bycatch included a green

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E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

kingfisher, & variable seedeater.

We left the release cage for telemetry at Bridge when we moved the nets to Well.

A day later we still haven't remembered to pick it up!

0 April 00 weather: Partly cloudy, sunny, light breeze.

~~At night~~

Today we did observations at ~~Bridge~~ 2nd Beach (2) CC (4) EDM (1) 2nd Landing (1) Well (1) First Beach (2), 2nd Beach (1). Kat did telemetry work but the batteries were running low (~45 mv/sets) and I didn't track in the afternoon. The DMs at 2nd Beach (2) are all banded, thank goodness, but were doing nothing but down-whistling at me.

Kat found a nest of blackhooded antshrikes being attacked by ants. The chicks were writhing ~~at~~ and alive when she saw them; two hours later they were dead and entirely coated in black ants. So it's not a wild theory that

DuVal,
E. H.
2000

More importantly: I saw a new species (for me) of snake crossing the snake field path as I went to 2nd B_{2a} at 10:15. Black back w/ yellow speckles dorsally on anterior $\frac{1}{2}$. He left very rapidly.

Isla Boca Brava, Chiriqui Prov., Panama

E-2's chicks were killed by ants.

Kat and I both staked out K-15, and she got a White-over-Al, & I got an Azul (maybe). Pretty disappointing return on hours of waiting.

Yesterday Mark got up first. Today he ate all of our extra food in anticipation of tomorrow's trip to David. Kat got the Steinbok glass. Some ~~potatoes~~ beach-goers seem to have made off with our door (lunch site).

1 May @ weather - overcast all day, rain for ~30 min starting at 4:30pm.

I'm reading The Beak of the Finch by Jonathan Weiner today & it's making me consider some things that I had not about manakin: If selection can be divided into life-stage forces, pushing & pulling different types of birds in different directions, then it's perfectly feasible to study evolution in this impossibly long-lived species. As far as social selection goes, males of different plumage classes

DoVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

1 May cont

are the obvious divisions. But I would have to be omniscient to know which birds ever displayed & with whom... hum. Something to think about.

Today we set two nets to try to catch BOY and remove her radiotransmitter, but failed. We did catch three other banded females, and attached transmitters # 071 (freq. 151.071) to RBV, # 010. I found her with the attenuator on high two hours later, just south of first lead ① (but I didn't actually see her).

Kat did a nestwatch at K-15 and reported WBA as the female; there is no WBA, but WBV was banded very close to there recently... I don't like deciding these females by inference! I'll try to do another nest watch there before the nestlings fledge. Kat managed watches at two perches, but with the morning eaten up by BOY, Mark and I only managed one each. Mine was at EDM ②, where the male insisted on

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

1 May can't

sitting where I couldn't see him. There seems to be one male who ~~sings~~ doesn't interact much with the EDM[Ⓢ] regulars, but I'm having a hard time watching him.

I stalked out K-4 and saw WVR, who Kat thought could be the mother. However, we caught her today & her bp was only 1: certainly not at a level you'd expect for ~~too~~ a bird with 5-7 day old nestlings! Due to the recent rash of nest failures, I bled K-4 today for insurance.

May 2000

We took the day to go to David with Frank and I managed to dispatch the liquid nitrogen problem immediately - I filled the tank without problems and sent it on errands with Frank. When I made it home, he met me with a story about the lid flying off en route and it took a while to understand that he did have the lid, still... Whew. The day went amazingly, amazingly well. I bought capillary tubes, microscope slides,

DuVal,
E. H.

2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

2 May cont

and figured out where to buy methanol on a later trip. On email, I found out that I've received \$2453 from the AOU Blake awards fund for my well-written proposal. Hooray!

For future reference:

+ 27g needles.

Capillary Tubes + microscope slides available at:

Distribuidora Medico Dental, S.A.

David 774-6977

Panamá 225-5791

microscope slides = \$5 / 72

Medical Productos Hospitalarios (better)

Ave. Ira. Oeste y G Norte "Edif. Doña Lola" Apartado 252; David

Telefono 775-0148

Cap tubes 8.25 per 500 80 ml ones w/o heparin

Methanol at:

Productos Ibis

Liquid N₂ at:

Geneva gases industriales

a vuelta de la Texaco en el Interamericana
telefono 236-2553, 236-0334

\$2.25 / liter

Aceti - Oxigeno

\$1.75 / liter

further left on highway from David
past Costco

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E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

May 2000

Today was the day off for this week, so I didn't start work until 1:30pm. But I opened unsuccessful nets for BOY and closed them because it was too windy; radiotracked ABY and RBV, and banded M-6 and K-15 to completion. NNN ("the littlest All Black") in K-15 is 4g lighter than his brother, NOY. He has sores on his head from insect bites and just generally looks like he won't fledge any time soon. NOY, on the other hand, is strong and well-feathered, and made a short flight away from me. M-6 similarly has a runt, but his the runt by less than 2g. So it seems that mannikins hatch asynchronously, barely. Interesting. M-1 had ~~the~~ one baby stay in the nest for about a day longer than the other, but we didn't actually check to see that it was the littlest sibling.

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

May 2000 Weather: Overcast, mostly still w/ mid-day breeze, $\sim 90^{\circ}\text{F}$; no rain.

There's so much to do. I don't have an organized system for rotating watches through our perch sites, and I can tell that will be a major fault of the project unless I work it out. The problem is that a rotation requires knowing what I want to get from the data, & I want everything. I need to know the dominance rank of all males, who copulates w/ whom, etc, and we're still having trouble reading band combinations. I know I'll need to take a subset of sites to keep things realistic, but... which? And what good is it to only know dominance in ~ 10 pairs of males? And while I fret over that, the unfound nests are fledging, BOY's transmitter is going to waste, and we still don't have mama ID's for soon-to-fledge nests.

Kat and I vetted unsuccessfully for BOY until 1000, while Mark did telemetry. We each did 2 behavioral

DVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panama
observations, & I staked K-4 while
Mark staked M-9. I banded K-4's
babies both NA_{al} (NAP + NAB) and
M-9's NWP_{al} and NPXW_{al} (the littlest one
still needs 2 bands). I got complete
blood samples on both nests, and a parasite
smear from NPW. I found 2 new
nests; one under construction near 1st Beed,
& one probably already failed near M-9.
A huge proportion of nests seem to fail
before or soon after hatching. So far
14 babies have survived to be bled, & we
have mom ID's on 10 of those.

5 May 2000

Weather: Slight breeze, mostly overcast, hot.
Mark and I set nets for
BOY but didn't catch her, again.
I think that was our last chance to
target-net, since her baby is very
close to fledging. I stood on a
chair to take him out of the
nest, with Mark steadying the
base. He flew out of my hand
as I took him from the
nest, & I caught him in net air.
He is now ~~NPW~~ # 255.
NPY

DuVal,
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2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

5 May cont.

We also caught RBV, who had spiderwebs wrapped around the antenna of her transmitter but otherwise seemed to be handling it very well. No visible irritation of skin/feathers. I guess the spiderwebs explains the white stuff on BOV's antennae when she swooped past us yesterday.

Mark and I did two watches each (2nd Beach ①, BT ①, EDD ①, + EDM ①) and Kat did the radio tracking & nest-searching for the rest of the day. One nestling (the smallest)

May 2000

Overcast & still all day, 4mm of rain in the afternoon.

Kat and I did 3 watches each while Mark did telemetry & nest-searching. RBV (transmitter 1071) is the mother of two nestlings in K-16 (a nest we'd already found). Perhaps it's bad luck, perhaps it's a good sign that we're finding the majority of the nests. Mark started M-9 and

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

6 May cont.

got the mom's combo - # AOG. Whew!

Two more genetics data points, though one of the babies is dead. Mark watched AOG eating the chick's fecal sacs; the fourth time he's seen such a thing during nest-watches. The female feeds the babies first, then picks up a sac & simply swallows it. The babies do regurgitate fruit seeds that are too large to be digested, just like the adults. I've found them in the nest with a fresh, cleaned pit resting by their bill, & ^{the spot} ~~around~~ K-4 was littered with two kinds of pits. I collected samples of both & stored them in a manilla envelope on 5/5/00. The oblong seeds often (~50% of 8 seeds) housed large, white grubs that had eaten away the inside.

May 2000

Clear & sunny, 87° in the morning.
13mm of rain in the afternoon.

The telemetry equipment continues to cause problems. I couldn't get a signal from any of the birds all morning, except for a few faint beeps from 'BOY' & RBV when I was up near the cleared lots: they're

D. Val,

E. H.

2006

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

7 May cont.

somewhere East of there, which narrows it to just about the whole study site. I was looking for ABY specifically, & so continued on to walk the "Adventure Trail" through the former horse pasture with no success. Afterward, I was again unable to raise a signal for any of the birds. I left the ~~trans~~^{receiver} & antenna near Acacia while I went nestsearching (& found E-I & E-J). When I got back, there was again no noise at all from the receiver (no static, same problem as yesterday). I took the equipment back to keep it from being rained on. There is a faint static noise that can only be heard if the volume is all the way up and your ear is pressed to the machine.

Mark & Kat did watches in the morning, and we all nest-searched without luck in the afternoon, after the downpour. It's really the rainy season now! The flying termites have appeared, reminding me that last year their shed wings carpeted this

~~9.8 m/s x 60 s~~

²⁷
10 m/s

100000

D. Val,
E.H.
2006

Journal

7 May

Isla Boca Brava, Chiriquí Prov., Panamá

place for several days. The geckos are having a feast. I could definitely make a study of gecko behavior here, though I think odd fascination with reptiles in the bar might not go over as well as my usual fieldwork.

There are certainly different species and a lot of dominance interactions. How could I find out what species of gecko are in Panamá? The lightposts in the restaurant (were in the path to el baño) make wonderful discrete territories. Perhaps I should look into the gecko literature & think it over for a side project next year?

We discussed the rotation of observations today, & the consensus is that it would be best to watch about 10 DP's intensely, and just try to lagartijo ← lagartijo = gecko figure out who's who at the other. But: 10 DP's, or 10 lehs? I guess 10 lehs wouldn't really be possible. I want to have a large enough sample size to be

DuVal,
E.H.
2000

Journal

7 May cont

Isla Boca Brava, Chiriquí Prov., Panamá
able to get significant results...
How about:

3 lks; watch all DP's regularly

could answer: How much exchange between DP's
is there?

Is the same σ dominant at
all the
~~each~~ perches?

Do σ s visit all the perches or
just the 1^o one?

Need simultaneous watches!

10 DP's watched intensively; select 1 per lek w/
lots of activity

could answer: Who is α/β ? All dominance acts
T levels different betw. α/β ?

Behavioral descriptions

Perhaps know dom status of
 σ w/ paternity

Song rate different by T, rank?

Type of partners different?

Are partners relatives?

Additional perches: σ 's known to display?
Perhaps rank?

(for paternity question)
 σ partners who attract
females for display.

So what are the lks?

D. Val,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

7 May cont.

Hypotheses being tested:

H_d

1. ♂ partners = relatives

2. β = mating ♂, too

3. Reciprocity

4. Learning

5. Perch Inheritance

6. β related to ♀?

(♀ attracted to rel. song, so α lets β hang around & β inherits perch??? But then site fidelity becomes a problem) ← VERY unlikely. But test it...

Need:

Who partners w/ who

- ever
- Blood from ♂s
- for ♀s
- as α/β
- for dance / QR / SF
- lots of nests
- Dominance rank
- Blood from all

- obs of switching mating pos.
- obs of Δ dom @ different perches

? RC's related to DM's they practice with?

- long-term obs (♀ fidelity)
- manipulative exp.

Perches for Intense watching:

EDM ①

WAR GAR

Gully ②

(Bee Tree?)

Bridge ②

RBB

2nd Beach ①

AYY

CC ④

BYY

First Beach ①/2

XRY BPY

good sites,
unbanded DM's

~~EDM~~
FBE ③

WEL ①

BTE ①

GLX ④

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2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

7 May cont

Do σ σ s stay ~~at~~ on site? How
many σ s have we banded off-site?

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov, Panamá

3 May 2000

Weather: rain at night - just a little.

Partly cloudy in the afternoon/morning.

3 observations each today, and the telemetry equipment magically began working in the afternoon. I tracked BOY & ABV but still got no signal from ABV. Her transmitter has (should have) more battery power than BOY's...

Kat found a nest near first beach with two chicks (I knew there had to be more chicks somewhere!). I found two nests under construction: one near 2nd Beach (3) and one in between 2nd Beach (2) and Main Street. The latter was revealed to me when I noticed a female landing near R-4 (a recently failed nest) while I was doing a watch at CC (1). ^{when I saw her a 2nd time} I crept closer and watched her circle the nest, land on it and peer in, then grab fiber from the nest and hover upwards, pulling it. She flew off across the bamboo path, & I stationed myself farther and farther ^{along her route} until I found her nest. ☺

Beethoven's
Pension Don Juan

DuVal,
E. H.
2000

Journal

9 May 2000

Isla Boca Brava, Chiriquí Prov., Panamá

Weather: Partly cloudy all day, rain beginning ~ 5:30 and continuing sporadically. Today was the "day off" so I slept in and went out at 7:30 to target net at Central Clearing (5) for the unbanded DM. I saw two unbanded DM's QRing together shortly before I captured one at 11:45, so I guess there's always more work to be done. I also caught 2 unbanded G's, RRY, PYP, & YPY, & the female from former E-1 ^{WAG} nest (though I need to check that one).

Clint passed his orals today! I took some elaborate planning to get to Boca Chica to find this out, but it was worth the trip. I banded the first bird of the day "OR/Aal" as Clint was probably waking up.

I continued netting with less success in the afternoon, & finished The Beak of the Finch. I didn't find time for telemetry work today.

DuVal,
E. H.

Journal

2000

Isla Boca Brava, Chiriquí Prov., Panamá

Fletcher killed two rodents in the kitchen

ay cant
(1)

Common Cane Rat (probably

Zygodontomys brevicauda

(2)

E 15 mm

Body 110 mm

H F 25 mm

Tail 90 mm

} underparts whitish
pale base of tail - lower
 $\frac{1}{2}$ anterior $\frac{1}{2}$
Skin of
Hind feet dark

Incisors ungrooved

Back dark brown

Muzzle below nose level = buffy orange
also buffy below ears & w/ short
hairs protruding into ears orange as
well

We're not sure what species this could
be: it doesn't fit well with any
in the Mammals of Central & S. America book.

2 May 2000

Weather: 7 mm of rain

We netted at Well today with
moderate success

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

10 May 2000

Coral snake being eaten by laughing falcon at "El Cruce" as we walked to WEL to net. The snake was still alive & slowly curling up toward the falcon but never got near its feet. Kent took a picture w/ her 500mm (600mm?) lens. Cool!

Photo = MVZ accession # 8546

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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

5/11/00

K - 5 active

13 pending

M - 3 active

3 pending

E - 4 active

80 pending

= 36 possible successful nests

3 never started

23 failed

11 fledged

= 26 unsucc., 11 successful

Weather: sun all day, rain at night.

Overcast to Partly Cloudy, slight wind.

So the totals above are the numbers of successful and possibly successful nests that are presently known. Just under $\frac{1}{3}$ of those with eggs at some point have succeeded thus far. I found another egg-less nest at first beach today. Are we catching them before they have a chance to lay, have they already been depredated, or did they grow and fledge without us? I suspect the middle option.

We netted at Well today, again, and caught another 2 unbanded (plus 2 previously banded.) I was getting snappish simply because I'm worried about not being able to get everything done before the end

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

11 May cont

of June. I left Kat and Mark to finish the afternoon netting while I tried again, unsuccessfully, for RBV. (I did catch BVR...)

We have caught 200 birds since arriving here this year. We're on #276, and the white russian night is scheduled for #300. Unfortunately, I still think it would be possible to meet that goal in DM's alone.

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E.H.
2000

Journal

13 May 2000

Isla Boca Brava, Chiriquí Prov., Panamá at ~4:00.
Weather: 47 min of rain, starting ~~at 4:00~~

We did 3 observations each, & Kat saw a possible copulation at the new site, "Triple Creek Junction." (male banded). Mark got band combs for M-11 (YRR, formerly listed as male due to her quite large red cap). It was a day of snakes: Mark saw a green "vine snake," that ~~also~~ sounds like the one I saw last year - dark eye stripe, lighter green head, darker green body. It was about 2m long & ~1" in diameter. I found a very large possible boa, that could be the same thing that Frank IDed as a Ber de lance in our first few weeks here. I spotted him moving downhill from 2nd Beach (2), where he was being mobbed by ants & lizards & mammals.

Note: We haven't seen a Swainson's Thrush in weeks now.

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2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

18 May

Rain all day. 29 mm

We slept in and did paperwork until lunchtime, summarizing our nest data on "spreadsheets," plotting nests onto the isla map, and beginning to summarize the behavioral state of affairs at Bridge (Mark). I read through the buildup of behavioral observations and filed them in the appropriate places. Mark went nest-searching and then we all attempted to do the vegetation estimates at nest M-1. We only managed 3 of 9 required $2m^2$ plots before calling it a day - vegetation work is phenomenally frustrating!

I staked out K-23 for 40 minutes & saw WA - again, but the light was too poor to read her third band. One baby disappeared yesterday, but the younger one is still in the nest. He still has a visible sore among the pin of one wing from insect bites.

I think Frank is getting tired of my \$150/week frugality. I think I'm getting tired of sniping comments about my stinginess as an employer.

DuVal,
E.H.

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

19 May 2000

47 mm rain in the afternoon.

Behavior watches were interrupted by the afternoon rains and the fact that the coffee maker(s) (hotpot and dragonfly stove) were broken. We had a cup of coffee in the restaurante before returning to continue veg work on M-1. The world was a much happier place after a little caffeine.

While in the restaurante we met Lionel, the head of ANAM for Chiriquí. He wants us to survey the birds on Isla Parida, where the marine park ranger station is located. This would give us a chance to catch manakins in a new place for the metzpopulation segment of the study, as well as being something of a working vacation. Lionel was a bit tipsy, but Frank says his offer is genuine and he'll take us there, feed & house us, and bring us back. Frank also suggested that Lionel could grease the wheels of permits for work in Chiriquí.

During my first watch, at First Beach (F), I heard a

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2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

19 May cont.

rustling in the bushes near the dance perch. I initially thought Kat or Mark was nest-searching their way into my watch, but then saw the yellow-beige tail of a tamandua. I watched him roll onto his back and roll around for about a minute — perhaps scratching his back or rolling in a scent? He stood up & walked within 10 feet of me as he claved at an old stump & then walked up a ~~small~~ tree as though it were horizontal.

0 May 2000

Rain after 5pm: 27 mm

I'm furious. There's a new, huge, driveable road stretching from first beach up through central clearing & to main street. My first watch was interrupted by machetes & chainsaws as the road passed within 3 feet of the display perch that I was watching. It's about 6m wide the whole way, & is carved through a lovely patch of first beach. No nests that we know of were destroyed. How can I work here??? Technically, the

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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

20 May cont.

birds don't seem to mind. They were dancing (on a more remote perch) as the deed was done. But I find it really traumatic to lose bits of the study site like this. I definitely need a complimentary uncut site — perhaps on Parida? I'll keep it in mind when we visit & band as much as possible. Doing such a venture seriously would require a lot more field assistants, I think.

We did 3 observations each & finished the veg. work on M-1 this afternoon.

21 May 2000

We all slept in this morning because the rain was hard & steady at 5:45 am. But by 7:20 it was clear and we still hadn't made it past the ranchos. We rallied, & Mark and I target-netted the mother of E-11, catching the Tawny-capped suspect on the first net run. I banded the baby & took a vial of blood because we'll be going to Costa Rica on Tuesday — we have to stay three nights in order to earn

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E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

21 May cont.

another 3 months of time in Panamá.
Kat did telemetry, & located ABY near
2nd Beach. I still feel like she has to
have her nest near DFG. I did veg on
K-16 & Mark did M-14. I'm not sure which
nest Kat did, but it takes approx. 2 hours
to do a complete veg sampling on a nest.
Everything just sucks time away from
the behavioral observations! I target-
netted for the und DM at BTE in the
afternoon with no luck (though I
caught 4 previously banded birds).
Unbanded birds are certainly more
scarce than banded ones in most
places, now. Finally.

The holdout DM's that I can think of:

BTE ①	Cots ①
Gully ④	Snakesfield ①
TL ①	Fire + Beach (over?)
Spring Palms ②	Well?

22 May 2000

Rain after 5pm 25mm sunny & partly
cloudy for most of the day.

Today was the day for tying
up our loose ends. We did veg on
the last two nests, & mark spent

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

27 May cont.

the morning tracking ABY. There has been no signal from BOY. I worked on ABY in the afternoon, following her from bee tree to second landing, back again, & back again. She led me to one nest^(w/ 1 egg), though it probably wasn't hers. I think she would have chicks by now... I intended to track her at night, but this night has dragged horrendously. Packing has taken a while, since all the research equipment had to be put away. We did one watch each (& Kat did 2), & staked nests. E-13 is indeed the nest of PWY, who we banded there yesterday. (Hooray!)

May 2000

Rain starting at 3pm

Today was our first day back from the Costa Rican "vacation" that took us to San Vito, the Wilson Garden, & La Amistad. Mammal-relevant parts were a brief conversation w/ Luis Diego Gomez about a lance-/long-tailed potential hybrid zone, and the observation that lance-tailed ~~monkeys~~ are present in La Amistad, if not in the quantities found

Dolal,
E. H.
2000

Journal

Isla Boca Brava, Chiriqui Prov., Panamá

28 May cont

here on Isla Boca Brava. Don Luis says that a man named John Zook, who is a Costa Rican ornithologist, went to Las Alturas (in a lower area than the station where I stayed last year) and noted that the lance-tailed manakin behavior seemed strange. He wasn't sure which species to classify them as. I meant to get Zook's email but forgot to ask for it before leaving. I'll have to email Luis.

In La Amistad I saw two DM's "que-rico" together, ^{along a path near the La Amistad lodge} and found a more ^(a ranger) dense population near the coffee field of Rafael, up the road a ways from Las Tablas ranger station. The vocalizations seemed identical to those here, though they didn't seem to be doing much QRing and I heard no dancing.

We also saw 3-wattled bellbirds, a chestnut-mandibled toucan, and a flock of crested guan. The station is lovely, if a bit tense & gun-heavy due to conflicts with poachers in the park. It seems like it would be a nice place to work. Ask at the MUNAE office in San Vito for info on use of the ^{ranger's} house.

DeVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

28 May cont.

Today we launched into behavioral observations ⁽⁷⁾ again, checked all our nests, and Mark & I each did a nest vegetation plot. Time is short... Many of my nests failed while we were away, & K-23 apparently fledged. I saw GRG flying back & forth in front of a green-plumage ~~bird~~ ^{myanbi} today: the bird would turn again and again to follow her as she flew, sometimes crouching low on the perch and opening its mouth at ~~her~~ ^{her}. No vocalizations. GRG was acting "nesty" in the same area (first beach) last week; perhaps the G bird is her chick? The DM's started dancing and I never got the chance to confirm that the G was unbanded.

29 May 2000

Rain after 5:00 5mm Sunny early

Behavioral watches (8) and one nest veg (K-24). I checked E-13, which was falling yesterday, & found the nest collapsed & one banded leg and one wing of 288 left on the ground below. Terrible.

Mark saw BOB on a dp at Well (3)

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2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

AREA		Perches	AREA		Perches
EDM	Core	(1)	2nd Beach	core	(1)
		(2)		→	(2)
		(3)			(3)
Gully		(1)			(4)
	Core	(2)			(5)
		(3)	CC	SFFF	(1)
		(4)			(2)
BTE		(1)			(3)
		(2)		core	(4)
		(3)		→	(5)
		(?)	Snake Field		(1)
Bee Tree		(1)	First Beach	core →	(1) / (2)
		(2)			(3)
	→ core	(3)			(4)
Spiny Palm		(1)			(?)
		(?)	TCD	→	(1)
2nd Landing	→	(1)			(?)
		(2)	PHT		(1)
	→	(2)			(?)
Bridge	Core	(1) / (2)	Acacia		(1)
		(3)			(2)
		(4)		core SFFF	(3)
		(?)			(?)
Well		(1)	Lotes		
		(2)			
		(?)	Cascade		
		(?)	Mangrove Fence line		

2060

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

29 May cont.

checking out the dancers. She didn't hate, but I guess she's reneeting. I wonder how many times they'll renet in a season? I wonder when the "season" ends?

Fletcher killed a *Peromyscus* in the kitchen. I was unable to ID it to species.

2 May 2000

Rain in the late afternoon.
Dinner at 6.

We did three watches each hour
and I tackled the pile of
observation sheets that I've

In the morning we were in
alligator farm we had
drink our morning coffee. The woman
said that the boy who was
should not be there. She said
that the boy was there
alligator farm.

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

June 2000

Rain in the evening. Clear & sunny morning, ^{very} cool in the early AM.

We set 5 nets at BTE & Gully ④ and ran those until 12:00. I repaired the Avinet 9m net, Mark did a veg count on E-13 (and got some odd looks from Danielle while he was using the bright pink measuring tape), and Kat stalked M-14 (mon = -PV, probably). We caught a total of 20 manakins (the 1 white-tipped dove bycatch escaped from the net), and only 3 of them were new. Of those (all greenies) one had extremely worn feathers and another was clearly young-of-the-year (all feathers new, body totally in p.i., bright gape). Interestingly, the "juvenile" still had a skull of 6. We have caught one bird with skull windows... The unbanded DMs that we were aiming for evaded the net quite successfully.

June 2000

Overcast in the morning, clear & sunny midday. Splendid evening. ^{Rain fell + in the morning 6/3 - 12:00}

We netted in the same place again today and captured #300. Her

DoVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panama

2 June cont

name is, appropriately, WOW. We did not, however, catch either of the two DM's that we were targeting. I guess I'll be spending my lunch hours there for a little longer. We captured WBW, whose number does not match the number for her in the Master Banding List. It is possible that we've double-banded yet again (we didn't check the MBL until after the bird had been released). WBW has joined VVB (who we still have no blood from) on the hit list of most wanted birds.

I stalked out K-25 to no avail. As with K-23, the female returned and sat on a low perch near the nest for several minutes, slowly surveying the surroundings. At this point, a tourist walked by and the female left. At K-23, the female then flew to the nest & fed the babies, & ate the fecal sacs.

A key capture today was ABY 090, who was carrying radiotransmitter

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E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

2 June cont.

#151.052. We never did find her nest, but took the opportunity to cut off the transmitter. She was in much better condition than RBV; she still had a trace of fat, weighed over 20g, had no bare spot worn on her back, and only one slight sore, mostly healed, under one leg. Not bad. I could continue telemetry work if they all held up as well. Now BOY was the only transmitter still out there (with dead batteries). I'd like to "redeploy" 151.071, but the receiver has been dead ~~for~~ since the Costa Rica adventure. ABY's battery was very slightly rusty.

We caught 2 birds (in the last 2 days?) who appeared to be young-of-the-year.

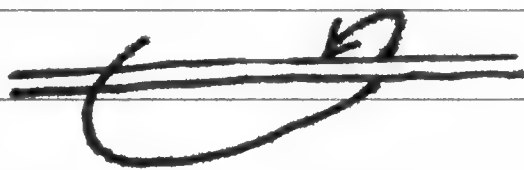
DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá^{mb.L.}

3 June 2000 (KATMANNO) - 11:15 2 (DM)'s (one was YO_R) were doing a new dance at 1st Beach (4). One bird would move from right to left on top of perch (not sure if he was sliding or doing a low flight), while the other would start at the left side and fly underneath perch (front to back) to end up on the right side.

ie:



Emily sick all day.

June 2000 Rain in the evening & night.

The interesting observation of the day is the frequent perch-switching by "shopping" females. I observed an unb TC ♀ at 2nd B (2), where AWA & BAW danced for her. She left then & soon I heard dancing at (1). So I crept up on the dp & found a very similar-looking unb TC enjoying the displays of AWA & --- DMs. A few minutes after she left THAT dp, Mark recorded ARA SF-1 for an unb TC. The chances that

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E.H.

2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

4 June cont

my TC's were different are very low. I still need to talk with Mark about the appearance of his ♀'s crest.

3 obs. each for Mark & Kat, & 2 for me plus nest veg. on E-16. Ugh. I think I'm creating work for us, but I guess nest info will give ^{me} the preliminary data I need to see if nest veg is worth pursuing next year.

5 June 2000

11mm rain

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E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

June 2000

10 mm rain in the afternoon

We did three watches each today, and mine were extremely lucky. I taped a QR bird with pretty good visual recording at 2nd Beach (2). I watched a K ♀ on the dance perch there - she was excitedly watching the dancing & doing \Rightarrow , but flew before copulation. Within a minute, ~~I~~ I heard dancing at (1). I followed it to the dp & saw a distinct TC of the same description on the dp. Again, she left. In that same 5 min, Mark recorded a TC watching ARA display. Hooyay, it is a 1ch! ^{Though the vent is probably larger than I realized.}

→
a! June 4.
much for
memory.

June 2000

11 mm rain in evening

We did two simultaneous watches today, involving all three of us - first beach (1, 3, 4/5) & second beach (2, 3). Both were woefully silent. I think I won't be trying any more simultaneous watches this year...

I netted at Gully in the afternoon, alone, & caught nothing. Mark did a watch at Acacia, & Kat vegged K-26. M-14 has apparently been eaten - both chicks are gone, & they're too young to have fledged (I think).

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

June 2000

Overcast in the afternoon, downpour at night (after 9pm) - 14mm

We spent the morning mist-netting in two teams. Mark & Kat targeted and caught the female from nest E-17, now RPP (#311). Mark stalked out the nest about 1/2 hour after they caught her, and confirmed that she was indeed the mother. She recovered from the experience & was feeding nestlings w/ an hour & 15 min. of being caught - not bad! They also caught an unbG near CCI & recaptured a ~~CB~~ CB.

I recaptured three birds at Gully (4), where I was target-netting for the unbG that displays there. He was present and even did a short QR bout, but avoided the nets.

I continued net repair, which is much-needed. Net 1 caught a roadside hawk in the bottom trammel, but he re-ripped a hole where Mark had repaired his initial boot-rip. I guess it saved me from the talons, but I'd prefer it if birds only escaped when we allowed them to. I also caught a young blue-crowned warbler who I video-taped (for lack of a still)

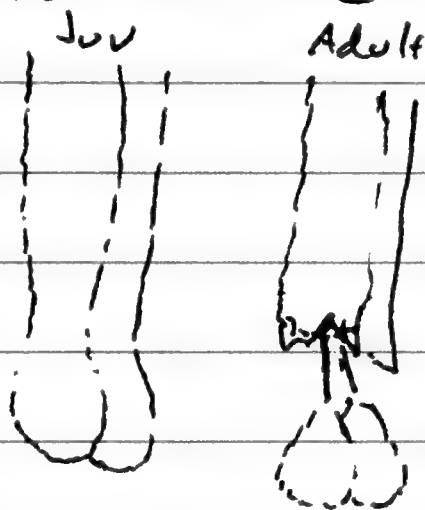
DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

8 June cont

camera) His tail ~~did not~~ yet have the "racket" structure of the adults, though it ~~is~~ narrow in the region that lacks barbs in the adult birds. It seems to



be common wisdom that motmots consciously ~~to~~ pluck out the feather sides to form their racket tail. This intrigues me because it seems so

unlikely. Far more likely would be a genetic (inherited) tendency for these barbs to weaken & thus break off more easily as the feathers age. I guess that testing this would require pulling out the tailfeathers of captive motmots & watching them regrow several times. Perhaps with zoo animals? What zoo has a large population of motmots?

Manakin activity at the display perches is definitely flagging. I hardly heard any QRing while I netted today, & our last many watches have been mostly blank or just long falls of dw, to, & wah calls. I think it may be best to concentrate on catching unb

Dis

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

8 June cont

for the rest of our time on the island, so that more of the peak season can be devoted to observations next year. Then again, it's useful to document the decline in display perch activity, & the male associations still seem to be stable.

We showed Frank the dancing videos we have so far, & he was appropriately impressed. Yidhirra had already observed it near Bee Trees, before the area was cleared.

The video on tape 3 now includes some good footage of Mark singing his "Mangrove Adventure" song (in honor of his nests located on the Frank-named "mangrove adventure trail.") as he skips away down main street. It's amazing, given our luck, that Danielle, Javier, & Oldecimo didn't round the corner to see that.

Centropedes abound, now that it's really the rainy season, and Frank thinks he saw a tinamou perched in a tree near ~~the~~ the restaurant a few days ago. I have been hearing a haunting, quavery whistle that rises in pitch & is repeated ~5 times. It could be

DoVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

a tiramou, I suppose. I'd love to see one!

June 2000

Rain in the evening
sunny all day

Clear +

Mark & Kat rotated netting at Gully 4 in the morning while I did 2 watches, & I netted for $\frac{1}{2}$ hour more after finishing my third watch. 2 recaps only, though one was WPR who needed a better hormone sample. My blood tubes have been yielding the same puny amount of plasma no matter the amount of blood in the tube. I separated out the plasma as usual & then re-spun the two largest "red cells only" tubes & got a significant fraction of plasma again. Ugh. So I guess I need to be spinning harder.

Mark did veg work on M-14, which recently failed; Kat's afternoon watch stopped early for lack of activity; E-19 failed (before we could bleed the babies or figure out the mother). Most disturbing of all, Kat found the two babies of K-25 dead in the nest. I had just taken a blood vial each

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

9 June

from them yesterday. Could I have scared off the female? So easily? Their stomachs were empty & the bodies were intact. I preserved heart, liver, muscle, & stomach (since I already had it out) in ethanol & freeze them. I placed the gutted chicks in 100% ethanol (need to dilute that!).

10 June

11 June Not T.C.J.

(Mon)

Veg E-21(?) - near First Beach 4. I have lost my compass (again)

12 June

To David w/ Frank; requested export permits; tried & failed to extend visa; went to Boquete for the night.

13 June

Returned late from Boquete; liked all morning with Boquete firechief Rafael and saw what was probably an immature male resplendent quetzal.

DoVal,
E. H.
2006

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

June 2000

Overcast AM, Thunder in pm, rain at night.

4 AM of the 15th: 9mm

This morning during our much-needed coffee session, a manakin flew into the open rancho, circled around us, and left. It seemed to be an accident. :-

We did 3 observations each today & Mark started E-21 (still alive!) for $\frac{1}{2}$ hour, to no avail. Kurt says there's an unbanded DM at second landing. The morning was exceedingly quiet, though Kurt managed to find manakin activity as well as observe copulations by rufous-tailed hummingbirds and the courtship flight of a little hermit. I videoed some QR bunts, but our tripod is thoroughly broken & un-repairable.

Steve, Hannah, & Andy, the family who now (soon?) will own Restaurante Boca Brava, leave tomorrow. I gave Hannah a tour ^{this morning} though there wasn't much to show (no birds).

Their emails are:

Steve: stevesoltow@hotmail.com
nojob@plateau.tel.net

DoVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

4 June cont

Hannah: hanna.soltow@netscape.com

Andy: vitajih@hotmail

harudin@earthlink.net.

I guess I can email them
next year & find out the state
of things on the island. ~~Ⓢ~~

June 2000

Rain for most of the day, usually not more
than a drizzle. 50mm

It seems that Steve left without
paying his \$150 bill; it's still unclear
whether he'll find the money to buy this
place. I paid my bill for the week
today...

MW + I did 3 watches each today, &
KM did two plus some serious yet un-
successful nest-staking. I took "insurance"
blood from the E-21 babies: so far
we only know that the mother is YP-.

Today was the first time we've
confirmed that young-of-the-year have
started dancing. At my first watch I saw
an unbanded G join in the SF-2 that
the DMs were doing for "her," then
hop around making the dancing "wise

DoVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

15 June cont

and a pitiful, warbly EEX. The dancing call is also obviously juvenile. To confirm this, I saw two G's display at CC(4), and one was NalBY. His bands definitely read as BYV if you're not careful...

16 June 2000

Rain in the mid-morning continuing until ~2pm
" " " early morning at ~2:45 ~~am~~ ~~pm~~
~10mm

Work stopped early due to rain and I spent some time going through nest sheets. I noticed that YP_— is the mother of E-21, and there are only 3 possibilities. YPG was caught with bpO while there were eggs in the nest and so can be ruled out. YPV has not been seen this year and is a possibility. But YPW is the final possibility, and mothered E-10 an appropriate amount of time ago to re-nest. E-21 is only about 10m from E-10... Interesting possibilities. How site-faithful are these females? I guess that WAG moved considerably to re-nest... but then, her first nest failed and E-10 fledged. I can't wait to see the genetics!

DoVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

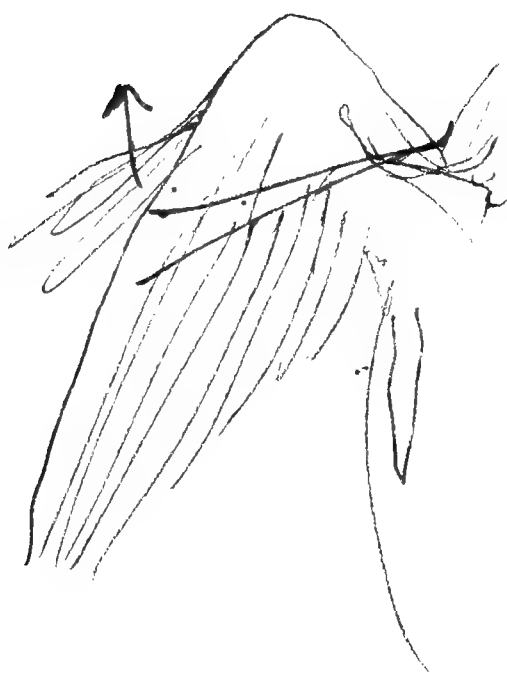
17 June 2000

45 mm ~~mm~~ rain - hard rain starting at
~ 3:00

The rain was so strong today that the ocean was flooded with orange plumes of run-off. I spent the morning waiting for an appropriate time to call Lionel from ANAM (personal # = 775-2055), but by the time I worked up the nerve at 8:30am there was no answer and I had wasted a big chunk of morning. Mark & Kat did 2 observations each in the morning, and I did one in the late morning at CCS. Afternoon watches were cut short by the downpour.

The tripod is broken and the video camera is now held steady by the magic of duct tape. We still don't have a good recording of DM's dancing together, or for a female. Kat and I filled in the video log for tape 3, which includes the jaguandi sighting.

E-21 failed obviously ^{due to a} predation event.
3 cheers for insurance blood!!



DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

3 June 2000

Heavy rain after 1:30 pm 45 min

EHD netted at TJS ① and captured the unbDM on the first net run (only manakin captured). He is now banded RPK. He was not caught badly - I only had to untangle the feathers of one really badly caught wing using Mark's technique of pulling the primaries through the tight net to relieve tension (see opposite page). But after I finished taking blood I noticed that his right side was starting to inflate with the characteristic puffed-air sac symptoms: the skin was lifted well off the breast muscle, & the bubble was spreading. When released he was unable to fly (perhaps because his body was distended under that wing?). I placed him on a branch ~12m from the banding station. 40 min later he was perched a few feet away, barely off the ground. At 11:00 I was unable to find him.

This is the 4th or 5th bird this year that has had this problem, and I'm still not sure what causes

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

18 June cont

it. My only idea right now is that the caught-wing technique might somehow pop the airsacs, but it seems like we've only seen this problem in DM's (& manakins) but we use that untangling technique on all birds. Perhaps something with the bleeding technique?

Is it best to deflate an inflated airsac, or just let the bird go? The badly "inflated" unbDM who used to display with RBB hasn't been seen since his netting accident.

We each did part of a watch before being caught in the rain. I saw DM's at 2nd B (2) display for an unbG juvenile (who tried to ech & dance too) as though he were a female. In the last ~~3~~ weeks, we've seen that 3x - and it's been quite a while since we've seen ♂s displaying for a true female. Green plumage definitely affords young males an up-close look at the male display...

Mark found a nest with chicks!

DuVal,
E.H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

19 June 2000

No rain! For once! I'm writing at 8:30 pm, so there's still a chance for it to pour tonight. Mark staked his new nest today and found out that the female is unbanded. After an uneventful watch at bridge, I joined him to set up a single 6m net near the nest. We caught the probable mother of M-21 and banded her PYY. Mark took two vials of blood from each chick and collected a fecal sample. Kat had a fabulous first two watches, with observations of dancing for a juvenile greenie. ^{possibly} In the afternoon I did a watch at 2nd B (2) and saw AWA SF-1 for an unbanded juv - and video taped it! hooray! The broken tripod has made videoing much more challenging.

Frank & Yadhira left for Costa Rica today, for the quarterly "vacation" (immigration reasons). Mark and I watched a scalp-breasted hummingbird sing beautifully for a long time near bridge: there were several singing quite loudly in the area.

DoVal,
E. H.
2000

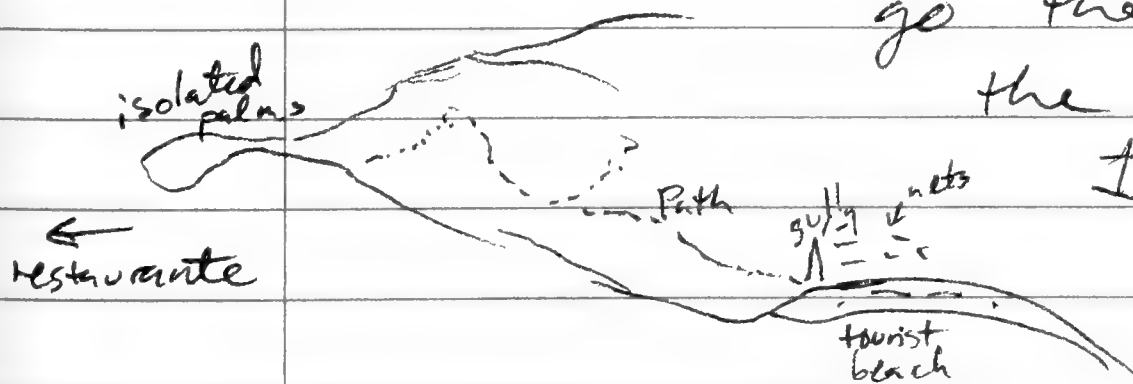
Journal

Isla Boca Brava, Chiriquí Prov., Panamá

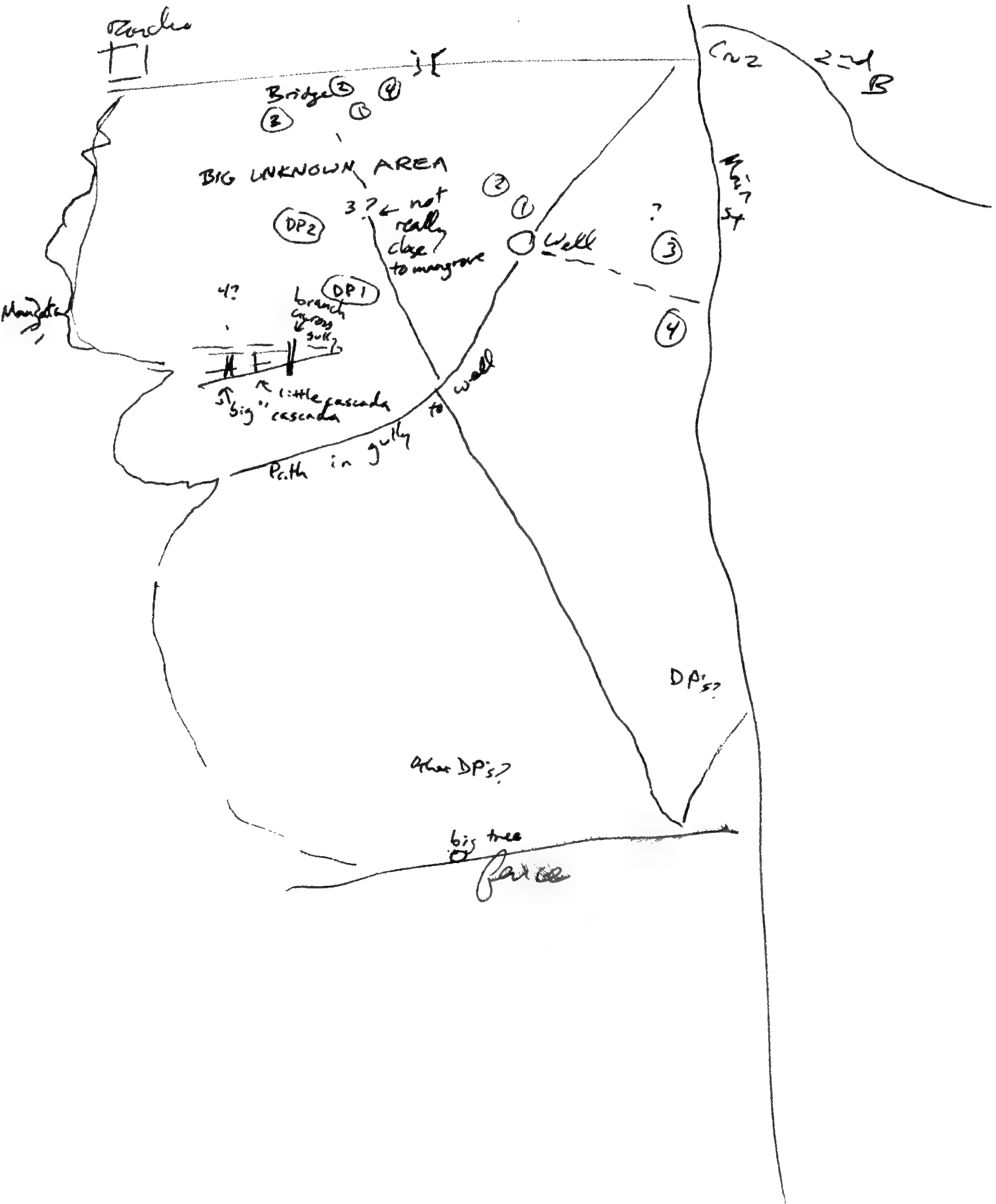
20 June 2000 Clear AM, overcast PM; no rain ^{until night} 6mm

Today we netted on Isla Linark, the closest island to Boca Brava. There was very, very little manakin action, though we saw many long-tailed (all unbanded). I heard one (relatively short) QR bout all day. Mark found a nest with 9-11 day-old chicks. We banded these (Bal & Fal) and target-netted their mother. The other nets caught only 3 manakins (all DM). One DM had a very scaly breast (almost brood-patch-like), and all had body feathers in pin. I wish we knew whether the IBB manakins were as quiet today... We didn't take the time to do much exploring, unfortunately. Next year, it would be best to

go there earlier in the breeding season, I suppose.



We also caught a white-tipped dove and green kingfisher. There's a vulture roost over the main path. We found 3 additional old manakin



DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

20 June cont

nests as well, so they're certainly breeding healthily over there. Study site #2? Linarte has not been disturbed much at all, it seems. It would be an interesting contrast to the well-"cleared" land here. Of course, with a banded pop. of 6 compared to 310, it doesn't yet compete.

21 June 2000

Light showers in the mid-morning and ^{2mm} after 5^{PM}. Mark did a watch at CCS in the morning and then met Kat & me at Mangrove ① where we were netting. Carrying net poles to Mangrove at high tide is certainly laborious! We caught 2 subIM's, among other assorted manakins. We'll net there again tomorrow morning, just because it was so painful to set the nets. I hiked cross-country to Lots and did a 1-hr. observation there (just to figure out where to put the nets). I think I've almost got a handle on the Mangrove / Fence line area. The real observations will have to wait until next year.

DuVal,
E. H.
2000

DuVal Journal

Isla Boca Brava, Chiriquí Prov., Panamá

2 June 2000

^{rain early AM. 12 mm rain}
Rain after 5:30; sunny & clear morning

We continued to net in Mangrove with little success - 3 recaps, and a few fixed net holes. We blazed a path to the creek that flows from Well, and then followed it to Well itself and ~~crossed~~ over to Lots. Kat & Mark netted there for about an hour and I went to TCJ to do a watch (and promptly saw 1-2 unbanded DM's).

Deidre & Lynn, two FIT Marine biologists, are here looking for sea slugs. Deidre is on a STRI pre-doc fellowship and recommends that I apply - I'll certainly look into it. Deidre says that Neal Smith has a reputation for being cantankerous. I like him... But Biff may be a better choice of host for a fellowship application.

June 2000

~~12~~ mm rain in evening

We set the rest of the nets at Lots and caught a grand total of three birds - but one was "the" unbanded DM. Another was an unb G♀

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

3 June cont.

who was ready to lay an egg in the next 24 hours: so the breeding season is not completely over! The third was a recaptured DM who was caught in the area when I target-netted E-13, but as of yet we haven't seen him display. Mark did an uneventful watch at BeeTree before meeting us with the ice, and we all did one watch after lunch. Well (2) was quite active, and I saw yet another bout of solo "baby dancing" as a unb juvenile leaped about and gave warbly "eek" calls from a high perch.

~~the~~ I paid Frank this morning so that he could pay Amelia - she'll be in David for the rest of our time on the island. We had planned to take her and her daughter out to a movie during our one night in David, but Frank pointed out that she'll be returning with him that night.

The sea slug biologists found a specimen on the shores of IBB that they haven't found in other parts of Panamá (this is as far as they've come along the Pacific coast). Their presence prompted Frank to say that there are even worse jobs than watching little birds. i

Took ~10ml blood from E-22, RRR's chick.

DuVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

1 June 2000

9mm rain

With only two full days left, we split up to do observations at our targeted dance perches. Activity has definitely dropped off, but "Que Rico" duets can still be heard. It poured after the first observation period, & Mark & I went back to the ranchos for ramen. They spent the pre-lunch hour preying off distances between dance perches. I stayed out in the rain and found a rufous-tailed hummingbird nest with two eggs at first beach. We each did another watch in the afternoon, and then a little net repair. Net repair is turning out to be a very, very big job. ^(most) Some of it will have to be done at Berkeley.

25 June 2000

no rain

We did observations all day

DeVal,
E. H.
2000

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

26 June 2000

no rain until 4:00: ~ 2mm

Today was our last full day on the island. We each did a farewell observation at the display perch of our choice. Kat chose Bridge 2, Mark chose 2nd Beach $\frac{1}{3}$ ("Copulation Station"), and I ended up at CCS after some morning packing. I tried without success to leave the camcorder recording at the dance perch while I went to collect veg samples. I took Theresa + Juanita's picture, as promised, and will mail them a copy via Frank. I tried my best to bleed the far-too-young chicks of E-26. I got a small drop of blood from the older one by pricking him directly in the thigh. The wing vein does not work for such young birds! I failed to get any blood from the younger sibling. The older baby had ~ 5 healing sores from mosquito bites.

Packing took forever. Yadin found a baby lea on the back of one of the restaurant chairs, and Mark, Kat, and I passed him around, to the horror of the locals who believe they're venomous.

DoVal,
E.H.
2000

Journal

Panama City, Panamá

June 2000

Carmen Goldames helped me ID plant samples for several hours today. The results:

family

M-11	Cupania	Cupania guatemalensis
fruit 1	Myrtaceae	
fruit 2	Melastomataceae	Miconia sp.
K-24	Piperaceae	Piper sp.
E-16	Acanthaceae	Aphelandra sp.
E-14	Sapotaceae?	
E-15	Chrysobalanaceae	Hirtella racemosa
K-22	" "	" " "
M-16	Acautaceae	
K-23	Capparidaceae	Capparis frondosa
M-14	Flacourtiaceae	Casearia sylvestris

I drew pictures of the specimens & recorded characteristics in the composition book.

DuVal,
E. H.
2000

Journal

nest length + width measurements

Nest: M-4

Egg 1 Wt. $11.25 - 8.5 = 2.75 \text{ g}$
L 21.8 mm
W 15.4 mm

Egg 2 Wt. $11.0 - 8.5 = 2.5 \text{ g}$
W 21.6 mm
W 15.1 mm

Nest: K-1

Egg 1 Wt. $11.25 - 8.5 = 2.75 \text{ g}$
L 22.5 mm
W 15.6 mm

Egg 2 Weight $= 11.5 - 8.5 = 3.0 \text{ g}$
L 24.2 mm
W 15.5 mm

Eggs were marked "1" & "2" in pencil; width & length were measured at the widest/longest part of the egg, respectively. Weight was measured with a 30g. pesola. M-4 failed before hatching; K-1 failed shortly after hatching.

DuVal
E.H.
2000

Journal - Expense Records

I believe that I lost my accounts book
in David.

Expenditures from 3/18 on:

Isla Boca Bawa food & housing	3/18	18.35
	3/19	26.80
	3/20	20.05
	3/21	14.15
	3/22	18.50
	3/23	20.50
	3/24	17.70
	3/25	21.30
	3/26	19.50

PAID 3/27: \$173.85

In David (3/21):

Taxis:	8.00
Internet:	2.00
Breakfast food:	35.00
Lunch:	11.00

3/27 - 4/2

\$140.00

IBB 3/12 - 3/17

\$126.50

4/3 - 4/10 (8 days)

\$155.60

4/11 - 4/19

182.10

in David on 9/17:

Charged \$500 in TC's

Email \$4

Needles \$14

Envelopes/Tape \$4

Breakfast food \$47

Bus \$4.50

DoVal
E. H.
2000

Journal- Expense Records

4/27	18.70	
4/28	19.30	
4/29	20.35	
4/30	20.45	
5/1	20.40	
5/2	17.00	116.20
5/3	30.90	147-
<hr/>		
7-day total	147.00	

5/10 11	19.55	
5/12	17.60	
5/13	19.80	
5/14	18.80	
5/15	19.80	
5/16	18.25	
5/17	24.45	
	<hr/>	
	138.25	

return from Costa Rica

5/20	11.10	
5/21	21.05	
5/22	18.35	
5/23	21.25	
5/24	21.25	
6/1	14.10	
	<hr/>	
	109.10	

7-day total ^{6/2} until 6/8 \$ 151.55
6/9 - 6/15 (1 day in Bozette \$ 124.60
\$15 → M \$15 → K)

DeVal,
E.H.
2000

Journal- Expense Records

4/20 - 4/26

4/20

20.55

20.70

19.35

31.25

14.95

17.60

18.35

\$ 142.55 for 7 days.

5/2/00 David

changed \$300

liquid N₂ - 10 L 23.63

Microscope slides + 5 27-g needles 10.92

Capillary tubes - 500 8.66

Breakfast food 39.67

~~E~~ Misc. Liberia 3.70

farmacia 7.32

Internet 2.00

5/10/2000

5/8 - 5/10 room + board

141.60

20.30

19.30

21.05

17.60

DuVal,
E.H.
2000

Journal - Expense Records

Expenses in Costa Rica

gave Mark \$50 each, & both ran
slightly over that amount.

La Amistad ranger house - 1 night \$6 for 2

\$ 6/16 - 6/22	6/16	20.60
	6/17	20.65
	6/18	17.85
	6/19	25.30
	6/20	26.60
	6/21	20.60
	6/22	15.80
		<hr/>
		152.40

E. H. DuVal

Field Notes

2001

General Index

1) Catalog

2) Journal

DuVal,

E. H.

2001

Catalog

Specimen Catalog

EHD 008

Cascada lek, Isla Boca Brava, Chiriquí, Panamá.

Chiroxiphia lanceolata ♀

21.0g ovaries well developed, with an egg already formed (shell soft). 13.2mm

broken left wing (phalanges) in mistnet - unable to fly. Euthanized by thoracic compression.

Slightly tawny cap, unbanded before today.

LTM #408. Feather lice present.

Cascada lek is on the south shore of Isla Boca Brava, at the SE border of Claus Ellerbrock's recently-purchased land.

21 May
June 2001

EHD 009

30 APRIL 2002, Restaurante y Cabañas IBB, Isla Boca Brava, Chiriquí, Panamá
Leptopyga coerulescens - Sapphire-throated
Hummingbird

Total length 87mm

found dead in the open-air

3.25g

restaurant of Restaurante

Nare to tip 14.7mm

tarsus 4.8mm

Wing chord (rounded) 50mm

tail 33mm

brood patch - Ø

Skull 30% ossified

moderate fat - 2

molt - neck

♂ testes L 0.8 x 0.8mm R 0.7 x 0.7mm

D. Val, E.H.

2001

Catalog

22 Apr 2001

EHD 032

- chick of Chiroxiphia lanceolata,
found dead in nest R-2 (2001)

wt_g #357 = 6.0g; sibling of #356 (EHD 033)
tissue taken + frozen in E+OH

22 Apr 2001

EHD

033

- Chiroxiphia lanceolata chick, found
dead in nest R-2 (2001); sibling of
EHD 032^(#357); LTM01-356. Wt = ~~4.5~~ 4.5g
tissue taken + frozen in E+OH

* catalog numbers out of sequence because 032 and 033
were not cataloged until 2005

Dobal,
E. H.
2001

April 13 - Eric's birthday

Journal

Isla Boca Brava, Chiriqui Prov., Panamá

13 March 2001 - Isla Boca Brava

Today we began training for behavioral observations. I began by trying to explain all the variables we record and realizing how difficult it is to comprehend them all at once. We went to EDM 1 and BRI 2 as a group and did a 2-hr. observation at each place. It reaffirmed the need to do two hour observations, as not much happens for long periods of time. We had a surprisingly hard time ~~reading~~ ^{reading} hands - I guess I'd forgotten how difficult it really is. ARA was at bridge, and Eric saw RB-(DM) - perhaps RBB still is in power? One major sampling problem is that ~~the~~ ^{the sampling} is not well-defined. How far away does a down-whistle have to be before it doesn't get counted?

Notes on Boca Chica, from conversation with Megan, a Peace Corps volunteer who will be there for 17 more months. There are 100-150 people, 25 adult men, 2 bars,

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov, Panamá primary
~25 students in the school.

14 March 2001

Independent observations at 7 lek sites - Katie saw some good bouts of dancing for females, but didn't get the bands of the males (CCL4). We saw females on the dp at 7 of 7 observation sessions.

15 March 2001

I wonder if females on the dp relates to rain the previous night? No rain last night, and our watches were pretty dead. I did find a newly-constructed (but empty) nest near WEL3.

16 March 2001

We netted near SP⁰ for the unbanded male that displays there, but caught 8 banded birds ^{mainly} instead. Looks like we've done a respectable job of netting the little guys! We'll try again in the AM to see if we can get him. Meghan Hagerly, the Boca Chica Peace Corps worker who met Peter

DuVal,

EH

2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

16 Mar cont.]

Pitchard at a sea turtle conference) came to help us. Black-chested jay on the pond near the banding station, & a roadside hawk later.

In terms of interesting birds, I've heard the motmots relatively close at WEL, and saw a blue-crowned Motmot at SBE2.

I saw a new sort of warbler foraging on the ground near CCL5 yesterday (day before?) — bright yellow chest; olive back; pinkish, long legs; whitish-yellow ^{eyes} stripe above the eye that curved down very distinct way — I drew & labeled it in my field notebook, and we've found nothing ~~better~~ that matches it in the field guides. (= Kentucky Warbler) 1.5-foot

On the 14th I saw a boa constrictor on a stick above the dance perch at BTE1. I couldn't figure out why all the birds were alarm calling in any general direction but not approaching until I ~~then~~ noticed the snake

DoVal,

EH

2001

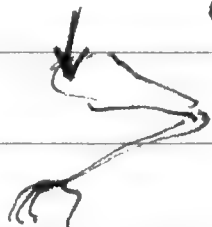
Journal

16 Mar cont]

Isla Boca Brava, Chiriquí Prov., Panamá
in between vs. I sketched it
& confirmed the ID with
Clay, who specialized in frogs
but in general knows his herps.

17 March 2001

We netted for the morning and
had a truly lousy day. At first
it was merely slow - no birds
at all from 0730 - 0930. Then
we got a terribly caught
unbanded Greenie. When we got
her out she was limp and exhausted.
Then Eric got a DM (GRA, the
mac-daddy, or one of them, from
Acacia) whose leg he says was
bent oddly in the net. When I
took him out of the bird bag, I
could tell it was broken. It
seems like the upper leg joint
was the culprit - the leg stuck
out at a terrible angle and
he wasn't using the foot.



DuVal,
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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[17 March cont.]

He was eventually able to grip my finger, and I rationalized releasing him: manakins forage on the wing, birds can perch one-footed, etc. I doubt he'll be dancing much anymore, and he may just die immediately. But I really did feel like he deserved a fighting chance (museum specimens be damned). After all, he had clawed his way up to alpha or beta status - I can't bear the thought that our net destroyed his life, though it may have anyway. The drawbacks of not putting him down ~~is~~ ^{are} that now I'm not sure he's out of the running at ACA - a "natural" halfway-removal experiment? Unfortunately, we didn't get bands on the ACA DM's in the two watches earlier in the week. No way to be sure he was still an active DM on the lek, though he was in the right place - SPY is just down-hill from ACA.

We topped it off with two badly caught birds, somewhat

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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[17 March cont] shaking my confidence in our collective netting ability (though I'm still fairly sure of myself). As we put up the nets, the unbanded DM we were targeting flew over. Terrible morning.

But I did find a second empty nest that looks ready for eggs, and a third near the SBE1-new display perch. I checked E-A and it had one egg! Now it's E-1, the first real nest of the new season.

The SBE1 dp seems to have moved across the 2nd bch. path, and AVY is still plenty active. His partner now seems to be RWR^(DM) no sign of AVP. I wonder where he went? And where was RWR last year? WRR (DM) was also present and displaying - interesting because he was a CB last year. Our first DM potential "player" of known age!

I checked the bands on the QRing birds on Katie's watch site; WBR and ABA at CCH t. Wasn't

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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

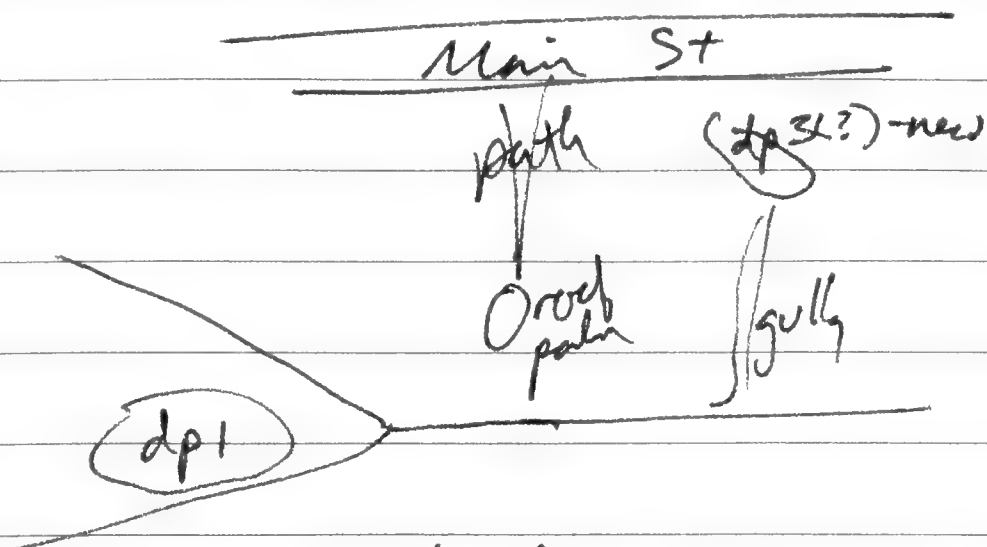
[17 Mar cont]

ABA farther over (SBE 2?) last year?
Looks like we may have some
interesting partner turnovers since last
year.

We need to beef up the band
reading. I'm able to pick them
up pretty easily, but I don't feel
like I'm helping Katie & Eric learn
it - I just don't know what to do
to help.

18 March 2001

We saw TWO copulations today.
Amazing. Especially compared to the
5 we saw in all of last year.
Eric saw one at TCJ ^{3(?)} a new
perch that he thought was #1.
The dan was unbanded & did no



co-display before mating. I
saw the other at Bee Tree

DuVal,
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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[18 March cont]

It was YVR + ♀ AGW (I'm going by memory here - the observation sheets are correct. RYTR seems to be β at that perch, or at least he assisted in the courtship but didn't copulate. There was no eeking involved in that dance at all. Otherwise the day was pretty non-eventful. Gully 2 is awfully quiet, especially compared to gully 4.

¹⁹
~~18~~ March 2001

A "day off" due to problems with the electricity company. Frank waited until 8:15 for the news that he should wait on the island to meet with the electricity workers for Claus's house. If he didn't have to wait, we were planning to go to David. When we got the news, it was too late to do much in the way of observations. So I sent Eric + Katie to the

DuVal,
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caught a Kentucky Warbler - my mystery
bird I Ded at last, though the eyestripe
seems to curve down behind the eye much
more than in the field guide.

Isla Boca Brava, Chiriqui Prov., Panama

March 19th

beach, & I target netted at
the new TZJ perch, trying to
catch the unb DM who was
seen copulating there. No luck,
but I did get a terrific hormone
sample on APB (CB), & recaptured
PPP (G), the ol' mama from
last year's M-1. I'd love to
find her nest again.

20 March 2001

We took the day to go
in to David - LOTS of curq!
(4 hours?), plus some playing on
dialpad.com, which lets you
place free long distance phone
calls to the US. The
reception was awful, but I
was able to communicate
with Collins & Mom. I
submitted an abstract to
ABS for a poster on this
project, & asked Eileen
for advice on teaching in
the fall. Biff Bermingham
wrote to say that he'd

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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

20 March cont}

been in the field when I emailed earlier, but that he would like to come to visit the field site during semana santa if he could — the week before Easter. Cool! I'd love to show any kind of advisor this place.

21 March 2001

Our watches at the four perches proved that there are more unbanded males than I had hoped around here. CASCADA is entirely populated by unbanded birds, or at least during the hour that I watched. Katie did her afternoon watch at Well 4, & half the birds there were unbanded as well. Even with GRA out of action, there was a fair amt. of activity at ACACIA. Some fighting & fly-at displays went on between cerulean-back ♂♂.

I setted for an hour & a half to try to catch RYR at Bee Tree — I'm hoping to

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2001

Journal

21 March cont.]

Isla Boca Brava, Chiriquí Prov., Panamá
get hormones from him in the same week that I got a sample from YVR... Maybe tomorrow.

Whimbrels on the beach as I walked back.

22 March 2001

We did the usual 3 watches each today, and things were surprisingly slow. Eddie had a good watch at Bridge, but otherwise... I found a nest ^(F-3) at second landing that already has two eggs in it -- same size as one of the nests last year. I think WSB had nested in this area last year, & during my watch WSB was hanging around looking nervous. I nest-searched the way from WSB 3 to SSB 1 and came within a few feet of stepping on a quite large sea constrictor. She started, I started, I backed up, & she advanced, so I turned & retreated quickly. A semi-chase! She never moved more than a few feet, but it certainly surprised me.

23 March 2001

Two tourists came out on my first watch today -- Jamie & his father-in-law

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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[23 Mar cont]

Al. is writing for a local Panamanian paper, and is doing a conglomerate story on Panama as he sees it while visiting his daughter's son-in-law, who are newly-arrived peace corps volunteers. Jamie is quiet & interested. It is bad, bad, bad, & doesn't entirely get the idea of what we're doing, but asks a lot of questions. Even during matches. So my session at 10:00 was really much of a wash. Al talked incessantly, but conspicuously, & never saw a mosquito. Jamie came along on my second watch, too, and things were much better, wise-wise. Laxer continued his new tradition of sleeping as out in the morning and correcting the watches with his sampling light through the dance perch. We set 5 nets at 10:00 for tomorrow.

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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

4 April 2001

There's been a long hiatus in field notes, but I'm going to do my best to fill in the gaps (or at least do better from now on). Yesterday was our day in David — \$70+ on groceries, \$26 for a high-class lunch, & I changed \$350 in traveler's checks. Our stipend from STRI did NOT arrive, and letters sent to the APO address that I was told to use were returned to the senders. STRI sucks. (Just the thing to put in the MVZ archives.) Eileen has not yet sent our thermometer.

Today was the weekly "day off," so I went nest-searching & found a record 8 nests. ^(5 w/ eggs) Now is definitely the time to be out there. I netted for the unb DM at SPY in the afternoon, but just caught one unfortunate unb RC. The north wind was strong all day — not quite so bad as the one really windy day last year, but strong. A herald of the rainy season? Nest E-1 had no eggs, but there was 1 ^{slightly} dented egg on the leaves below it. Perhaps a

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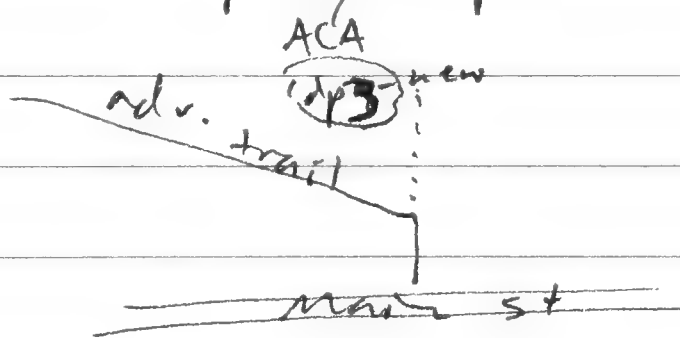
Journal

[4 Apr. cont.]

Isla Boca Brava, Chiriquí Prov., Panamá
predator ate one & knocked the other out?

I replaced it in the nest, & we'll see what happens. I think that nest should hatch in the next 2 days.

I saw GGR at ACA for the 3rd time - I didn't see his partner's bands. The location of that display perch seems to be:



5 April 2001

An extremely windy day. We each had to call off a watch for lack of mammalian activity, & were hesitant about nest-searching because we didn't want to flush females from wind-tossed nests. E-11 has partially hatched - 1 chick & 1 egg. I stalked it out for 25 min with no luck.

Lou Santiago, a UF grad student working on canopy photosynthesis in the canal zone, is here for a brief break and we had a good time talking with him.

He says to come by Topper & talk

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2001

Journal

[5 Apr cont]

Isla Boca Brava, Chiriquí Prov., Panamá
with him or Sunshine (who's doing some work on excluding birds & observing increased veg predation by bugs).

Loc also told us that the plants here are typical 2° growth, but that there are also a few old-growth species remaining - I guess they were left in the initial clearing?

6 April 2001

The wind continued today, though it was still for our first watches this morning. Manakin activity seems very much disrupted by high wind. I saw a QRing DM blown off his perch this afternoon.

I got bands on the E-11 wren: YVG. I'm very relieved she's banded - it would be a pain to net in that gully.

7 April 2001

Finally the wind stopped this morning. I netted for the unbDM at SP₁ in the morning, just in case, but it stayed calm all day. the manakins began to display again, & we

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E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

7 Apr. cont]

all saw QRing & dancing a-plenty. My nest at Second Landing has hatched - one egg-sized, brand-new manakin.

The new idea for today is that I could present a fake ♀ manakin to males on the display perch to incite dancing &, hopefully, dominance-related behavior. If it works, I could use this to test the idea that β males just act (less frequently) as dominant at subsidiary display perches. Finally, an experimental element to the work! If only the manakins will respond appropriately to a manakin mannequin. Makes me wish I had Dave McDonald's paper on his plumage experiments here. Eric has already carved a styrofoam manakin for a first attempt.

8 April 2001

3 observations each today, as usual. The males at Acacia seem to have returned to their old places and are doing their usual LONG QR bouts, but it's GGR (DM) and a bCB now. I'm surprised that no DM has moved in. Eric & I did a simultaneous observation at Bridge - the same DMs are

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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[8 Apr cont.]

definitely moving between display perches, but it's hard to tell who is dominant at each location. (Scratch that - that occurred on Apr 7).

We split up in the afternoon; Eric & Katie set nets at CCL for tomorrow & I ran nets (catching only a Swainson's Thrush) at Spiny Palm lek. I had a bad watch at TKJ - one of my worst, really - because the birds were active at 3 perches simultaneously, but I couldn't find any reliable place to sit & observe any of them. Same problem at EDM.

9 April 2001 - light rain, 12:30 - 1:45pm; overcast

We had a wonderful day setting at CCL, & caught 14 manakins. By-catch included the first white-winged becard that we've caught (I think). We caught all of the known banded DMs in the area, but an unbanded DM is still eluding us. Katie did a nest watch at the E nest near SLN, & read WB - off the ♀'s bands. Didn't a similar female have a nest in a similar place last year? M-11 or M-12? Eric has a nest w/ chicks now, too, but hasn't seen her legs.

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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panama

10 April 2001

Notes from Lee's Harpy information:

Harpy Eagle Center, Neotropical program

Alberto Palermi

Mailing address: Apartado 473

Paraiso, Ancon, Panama City

Casa #87 (Clayton)

Ciudad del Saber

Panama City

Republic de Panamá

Office 011-507-317-0350

Telefax 011-507-315-0064

Cellular 011-507-615-6064

~~Offic~~ perfund @ siufo.net
^n?

Netting again at CCL 2-4.

Eric's R-1 nest has an unbanded ♀

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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[10 Apr cont]

Rapaces = raptors

Bióloga - biologist (f)
pinchón -

Alcaza, su madurez a los cuatro o cinco años
científicos

voluntarios

crianza

reproducción

~~para conocer~~

serán observados por los especialistas para
conocer sus hábitos de crianza y reprod.

es un ave que desarrolla...

jaulas - cages

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E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panama
14 April 2001

Rain in the morning - light, for ~20min.
We did watches as usual - 3 each.
In both my 2nd (ACA) & 3rd (BR12)
there was a banded female enthusiastically
constructing a nest behind the dance
perch. PBG at ACA & W?Y A? at BR1.
At Acacia, I saw (DM) GRA,
who was injured on March 17 - nearly
a month ago. He was chased by another
DM (didn't see the bands), and was
holding up his left leg - not continuously,
but he would raise it after he landed.
What a relief to know he's alive and
trying to display again, if not succeeding.

During a watch at Bridge, I saw
a female manakin (AGW?) fluttering repeatedly
at the vegetation. Typical nest-building
behavior, but when I looked closer I
saw that she ~~was~~ ^{was} perching on a
vertical sapling, right below a very
new-looking vireo fledgling. She would
flutter up to his level and apparently
peek at him. She definitely appeared to
be biting at his head & body, & he
begged (or at least opened his mouth

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Journal

[14 Apr cont]

Isla Boca Brava, Chiriquí Prov., Panamá
to her - no wing-fluttering) in return. While perched below the fledgling, the manakin craned her neck all around, peering at the baby. I have no idea what her intentions were. Another ♀ (-Y-) was in the immediate area, though perhaps only because she was constructing a nest a few meters away.

A third interesting observation was a flycatcher (yellowish belly, wide bill, ^{white} eyestripe) stealing nest materials from an unfinished manakin nest just around the corner & up the hill at bridge.
(E-N)

We presently have 23 active nests, ^{altogether} 4 have failed (may be inaccurate - Reader needs to update his nest section of the folder), & 22 that haven't yet had eggs. Many in that last category seem to have been abandoned before the ♀ even finished construction. Are our flags disturbing them? Hard to say. One of the R nests ^{"R8"} has a female who persists in sitting on it, even though it's still empty after a week.

DuVal,
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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

11 April

I netted alone at CCL 2 while Eric + Katie did watches. I caught 6 manabios, but the one DM escaped me. I bled the third chick of the year today.

12 April

Watches as usual...

~~B*~~

14 April

I saw GRA during a watch at ACA today, and he's alive! He's holding his left leg at a horrible angle - I'm sure it was broken or dislocated in the net - but he's still trying to get into the action at his old display site. An unidentified DM chased him away from the ACA 4 display perch. It's been about 28 days since the accident at SPY.

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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

15 April 2001

Easter! Meghan Hegerty came over from Boca Chica & we all went "Easter egg hunting" - a surprising & resounding flop. Eric found one empty nest, & I found one with eggs at 5 pm, long after I had stopped looking. The restaurant staff was overworked & short-handed & grumpy. Things should get better from now on, as the tourists taper off. E-9 appears to have hatched. The ♀ was sitting on the side of the nest in the normal feeding posture as Meghan & I walked by, & we left her alone. Meghan mentioned doing off-season activity checks for me - I need to work out a standardized protocol for this ^{now} to be able to compare known active periods to unknown periods.

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E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

16 April

I bled 4 chicks today - a total of 13 chicks so far this year! My goal is 40 chicks/year. Observations as usual...

17 April

We went to David today - I talked to Clint on his field site via the emergency cell phone. He and Taren and John are definitely coming. I finally received my first \$700 check from STRI and successfully cashed it. I also found out via email that I'll be getting \$350 from the local Sigma Xi chapter this year (!).

18 April

Today was the "day off" so I went netting alone & caught the unbanded DM that hangs out at CCL2. Now he's BRG. E-11 either fledged or failed. We've had a few partially-banded RCs show up from last year's "failed" nests, so I'm not confident either way. I saw a green, tree-hunting snake on main st. today, much like the one I sketched at FBE last year (or was that 1995?)

19 April - PYPs babies were eaten hours before I went to take blood
Observations as usual.
(E-5)

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2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

20 April 2001

The North Wind started again at noon today. It seems like we may never have a rainy season this year. I target-netted the mother of nest E-9 and eventually resorted to despicable tactics. She was unbanded & totally unconcerned about being watched at the nest. I even set the net feet away while she sat still, watching. After she left & returned without hitting the net, I flushed her, bled the chicks, & caught her as she mobbed me. Traumatic for all involved, but the mission was accomplished. Katie & Eric each did 4 watches (3 2-hr. & 1 1-hr.). My 3rd watch, at CCL5, was so slow I stopped after 1 hour & went chick-banding. One of the chicks in E-8 was gone; fledged or eaten, with just ~~one~~ aluminum band. The other was still there, so I bled & banded her. E-7 was bled for the 2nd time & banded SA —; needs a few more days for the tarsus to be long enough for the last band. R-1 chicks were poised to fledge, especially PSW, who was trying to fly out of my hands. WOW mobbed me as I handled them. That poor bird has been tormented more than necessary this year, but her chicks are fine. There's a new flycatcher (olive-sided?) nest at BRIDGE, by the new well; it's

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2001

Journal

20 Apr. cont)

Isla Boca Brava, Chiriquí Prov., Panamá
got a downturned opening & is hanging from
an acacia. I'd like to verify the species
(I didn't even see the parents yet) & send a
picture to J. Mobley. The breeze continued
throughout the night - cool & dry.

21 April 2001

The manakins were pretty much silent today
as the North Wind continued. I'm less
worried about losing nest contents^{than I was last time}, since the
majority of nests have chicks these days, & I'm
well aware of how good those chicks are at hanging
on to the bottoms of nests. I checked empty
nest E-L today & found that it had two
eggs! I had started to think that our
empty nests always remain empty. Eric has
one nest by SBE (the tractor area) that the
female has been sitting on for more than
two weeks - with no eggs. I wonder
what she's waiting for?

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá
22 April 2001

Four nests WITH CHICKS failed today. An amazing streak of bad luck. One of the nests, R-2, definitely belonged to VVB - the one and only aranim whose blood is not on record. I went to set nets around the nest, and found her chicks dead + drying up. She came and flitted nearby, just long enough for me to confirm her bands. If she were simply abandoning the chicks, it seems odd that she would hang out and be worried after they were already dead. But then again, what else could have happened? I set a net, since she was in the area, but didn't catch her.

We had a good netting day, at least. Two more unbanded DMs were caught at Second Beach.

23 April 2001

We wrapped up netting at SBE, and we never did catch any of the key DMs for hormone samples.

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá
24 April 2001

Day off - Eric & I went to David for internet access, & Katie stayed here. SAs found time to set up the rain gage - nearly halfway through the season, & it finally gets done! I've been slacking off, it seems. No rain in a long time, though, so we haven't missed much. I emailed Krista Cramer, an ex-Peace Corps gal who is interested in being a short-term field assistant. We'll see whether it happens or not. I think 3 people ^{as assistants} next year would be best.

Eric & I walked along the Herencia-Boca Chica road a ways in each direction before getting a lift from Rubén. Saw a flock of Eastern Kingbirds, a blue-black grassquit displaying, more Euphonia, & heard manakins along the way, right near the corral that's on the west side of the road near Boca Chica (15 min walking?) & a house that's on the East side. It's a wooded gully that looks like decent manakin habitat. The Euphonia have appeared all at once, & the Swainson's Thrushes seem to have tapered off marginally.



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EH
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Journal

Isla Boca Brava, Chiriquí Prov., Panamá

25 Apr. 2001

We did watches as usual today. 2 nests had ^{new} chicks, but we've had a hard time getting bands on the females. Lots of nest-stalking where no female ever comes. I vegged 6 failed nests today, & we finally got the nest sheets in order.

BY (MU) was @ SPV with a horde of unbanded RCs. 3+ RCs QRing at once! At least a few were banded. Also a banded CB QRing with red eggs there.

Nest E-9 failed overall. The chicks (10 d. old) were gone, & the striped band that I put on one of them to tell them apart was left sitting in the nest! I don't really know how THAT happened.

26 Apr. 2001

I target-netted two unbanded females with chicks in the nest, & Eric & Katie managed 4 full watches each to compensate. I found a nest in the same tree as RAG's nest last year. No eggs yet, but it bolsters the theory that the females are extremely site-faithful. ~~I took that from hoping chick to genetically determine its sex as a favor. It's labeled "PAG's"~~ ^{orange-chinned parakeets}

[illegible]

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E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá
4/27/01

Eric + Katie did 4 full watches each today while I netted for the two unbanded females who currently have nests with chicks. I caught the one at WEC 3 (nest K-2) immediately & banded her YGW. The ♀ at E-16 (between ACA + BTR) was more difficult. I caught BOB + ROY before the unbG was finally in the net (now GGW), & it took nearly two hours.

Strong wind in the middle of the night for ~1 hour; from the south for once!

The birds are starting to dance again, at long last. Or, I should say, the females are stopping again. I found a nest in the gully across main st. & slightly East of FBE, in the same tree as RAG's nest last year. That inspired me to go searching for BOY's nest by FBE, & I saw a bird (G♀) there but found no nest. Frank cut down E-21 (failed) & hung it in the restaurant as evidence of our work. Good thing we already did the veg survey! Mental note: don't move the flags on the failed nests too close...
I took blood from Paco to sex him genetically.

Paco = Yaliray orange-chinned parakeet chick
the genetic gender ID is a present from me
to Yaliray.

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E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

28 April 2001

We netted at Bridge this morning and it was crazy as usual. We closed the nets just after 11:00 & had caught 18 manakins & a lot of interesting bycatch, including a blue-crowned motmot & a pair of red-legged honeycreepers that were so close in the net that they had their claws locked. We only caught one of the 3 DMs who seem to be displaying regularly there (YPB) — I hope we'll get ARA & BOW tomorrow.

The afternoon was devoted to watches. We tried to fit in 2 2-hr. watches each to make up for ~~not~~ going to David on Monday instead of Tuesday. I dallied & found the yellow- & -black snake down by the beach below our house. The alarm calls of 3+ bird species (manakin incl.) gave him away. I took pictures on roll 2 (the first roll of slide film) and hopefully we can work out an ID from those.

The peace corps volunteers from all of Chiriquí are at the restaurant for their quarterly meeting. Not the group that I expected them to be! We bought chacharas from Jae —, who grew up in Indianapolis — at least for a few years.

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E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

29 April 2001

Today we continued netting at Bridge. I heard dancing as soon as we opened the nets at 07:10, & went to investigate. ARA (DM) and BOB (DM) were doing cartwheels for an unbanded green ♀, and were doing SF-2 with wing-clicks. The female was excited - hopping back & forth rapidly on the display perch. They danced for more than 5 minutes, and at the end of one cartwheel bout ARA gave an "EEK" (finally dominance affirmed!) ARA flew off to the west & as he was "swooping" full-speed back to the dance perch, he hit one of our nets. I took hormone samples within 10 minutes of capture, & they were chilled 18 min 30 sec. later (Eric ran for the ice).

After we caught ARA, activity in the area pretty much ceased. Never caught BOB.

We had 0.25 cm of rain in the afternoon.

Tourist Gennie Viteri from Panama City (argenidaviteri@yahoo.com, 684-7189 cel.) invited us to do tourist things with her when we next go to town.

Do Val,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

Apr cont]

She suggests 'Isla Taboga, which you get to from Puerto Balboa. The ferry is \$4 each way.

I saw dancing for females at BTR in the afternoon — we're definitely in the second wave of nesting, now! I also found two new nests. In general, there seems to be a dry spell in nest-finding. Hopefully that will turn around soon.

30 April 2001

We went to (and returned from!) David with Frank today. \$70ish on groceries to try to stay Eric's starvation. There was a dead Tamandua on the highway. Eileen forwarded the official acceptance email for the NSF DDIG, proving that I will, indeed, be able to fund this research.

1 May 2001

I target-netted for Bow, the β male at Bridge today. As I set nets, ARA was doing a high

DuVal,
E. H.
2001

Journal

[1 May cont.]

Isla Boca Brava, Chiriquí Prov., Panamá
pip flight, well-recovered from his capture on April 29. I didn't get BOW, but I caught FOUR unbanded females (& 1 banded) instead. The day was overcast with light showers. I took blood from chicks in nests K-2, E-10, & E-16. The K-2 and E-10 babies have odd sores all over their heads & bodies. Some of them have the festering look of tick bites, but I'm not sure what caused them.

2 May 2001

I continued to try to catch BOW - I'd really like to be able to write a solid paper on manakin hormones. No luck. There were manakins, & yellow-green vireos, and ~~a white-winged becard~~ ^(25") a medium-sized boa ~~(?)~~ near SBE 1 when I did a watch there. I videoed him, as well as QR bouts with AYY and RWR.

Eric saw SF-1 for a ♀ by an unband DM ^{near but not at} WEL 3. Rain in the evening.

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

3 May 2001

Again, I tried to catch BOW and again he escaped me. I tried putting over manakin model ("Mildred") on the dance perch at BRL, hoping males would be inspired to come down near the nets, but she drew no attention.

Otherwise, it was weather as usual. I'm working overtime to get in netting, & it's wearing me out.

4 May 2001

I tried morning & afternoon to catch BOW, and did two watches. Finally, I had to admit defeat. I banded BOB's baby (nest E-18) #401 - slightly out of sequence, but it matches her #001 and the small AC/Hughes metal bands. Katie saw BOB copulating with -- B (DM) at snakefield, even though she has a chick in the nest now. Eric stalked E-18 and reconfirmed that that female is

DuVal,
E. H.
2001

But Katie saw
BOB's tawny cap, as
well... pretty convincing.

Journal

Isla Boca Brava, Chiriquí Prov., Panama

May cont)

really BOB, & Katie swears the
bands are correct on her observation.

Interesting! (note - there is a GOB ♀).

There was another medium-sized
snake being mobbed by manakins
today. A boa? But the patterns
were less distinct than the one I
videoed, and there were small
black dots on its sides - like
the one I sketched in the
first few weeks of the 2000
season. It was being mobbed
by manakins, yellow-green vireos, &
a white-winged becard.

I recaptured 3 females, including
the E-20 female, GBV. She has an
odd, white, pointy primary covert
that I noticed when she was
taking care of the chicks & I
videoed the plumage abnormality.

5 May 2001

Yadira's birthday, & Frank & Yadira's
third wedding anniversary. It rained
last night, & there were clouds
& thunder over the ocean in the
morning. We did watches & set

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[5 May cont.]

nets during the day, & I saw a complete (2- & 1-male) dance at EDM 1 & 2 & 3 (they moved a lot) followed by a COPULATION after 38 minutes or so. GAG copulated & YVA played the supporting roll. Katie saw another copulation at snakefield, with a few more birds. This time the female was BOV.

Frank asked how our day was & had fun "misunderstanding" our two copulations. He gave Eric his compliments.

6 May 2001

We ran nets at Second Landing & caught the β , RRB. YVB may be de ju vu from my BOW troubles. Nest E-22 hatched, with one teeny chick and one egg. Our first new chick in a long time! We saw GRA dancing with another DM for a ♀ at ACA3 in the morning! So his leg injury is not incapacitating...

7 May 2001

I ran nets at SLN alone, because it was so incredibly

D. Val,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

(7 May cont)

Slow. Eric & Katie did two watches & nest-searching each. It started to rain at 3:30pm & I had to close all the nets quickly. Of course, there was a soggy female in the last net (WYA). YTB eluded me, again.

8 May 2001

For the third time, I tried to target-net YTB and didn't catch even one manakin. The E-22 chick was gone, but the egg was still there. I checked E-23, in the spring palms near SBE, and there were two small chicks, 1-3d. old. I went back stalked it & after a mere 5 minutes, ♀ B-- landed on the nest & started to regurgitate food for the nestlings. Then she saw me and stopped, paused, & flew up to a tree over the path. A few seconds later, I saw ♀ BAG

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

8 May

in that tree, watching me worriedly. It's not a 100% clear ID, but I took insurance blood from the chicks anyway, & banded the larger #402. When I went to put them back, a banded female was perched on the edge of the nest (it was too dark to read the bands - rain approaching.) She flushed & I replaced her chicks - I hope she wasn't so traumatized that she doesn't come back!

9 May 2001

The rain that started last night continued until 9:30 this morning, and now the frenzy of flying insects (ants or termites?) has started. We slept in and did paperwork until the rain let up. Eric stated E-16 & confirmed that the female is indeed now banded - an unbanded acting "nasty" had me worried yesterday. I tried for Y4B without luck. I think I'll give it one more day. We did watches in the afternoon (1 each) & nest-searched. I found a

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panama

(9 May 2001)

fledgling (who could fly quite well, alas) in Mangrove. Testimony to nest-searching laxness in that area. Interestingly, he was perched in what was obviously a baby-roost: gelatinous, fruit-filled faeces were under his branch, & from the quantity he had been there a few days. He left when I walked around for a better view, but was back in the same exact place when I returned in 15 minutes. ♀ AGW(G) & ♂ YWR(DM) were down - whistling aggressively at me and AGW was semi-noobing, though the chick flew well out of my reach. I wonder if I could net him at the roost? It certainly wouldn't be EASY, but if it worked it would be worth it.

10 May 2001

Today during a watch at EDM, Eric saw a DM banded OA—. There's only one possibility, a bird banded as an adult male on Linarte, the nearest island to the study site. This is our first ~~and~~ record of dispersal between islands and

D. Val,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[10 May cont]

across reasonably large physical barriers. How exciting! And no wonder we keep finding additional unbanded DMs around here.

I tried to net Y&B one last time, & he eluded me yet again. This is a real problem for the hormonal study. But after four straight days of trying I was forced to give in and take down the nets. Hopefully we'll be able to sample at least 6 α - β pairs by the time the season is through...

Two of my empty nests had eggs today. We're well into the second wave of nesting, to be sure. I've found 36 active nests so far this year - and we've just passed the halfway mark! A record.

There was a new insect phenomenon today. A large ant-like insect (they look like a cross between ants & mole crickets) has excavated holes all along main street & the adjoining path, overnight. Each hole is the same diameter (~ 1 cm) and is surrounded by a ring of balls of earth. Some of the holes are plugged from within by more dirt. It looks like there's just one insect per hole.

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

11 May 2001

We each did four watches today (one a 1-hour one), and I still managed to confirm the ♀'s bands at E-23 (BA-) and find three nests. None of the nests have eggs, but only one had seeds underneath it, so I have high hopes. Eric thinks a formal study of seeds found below nests, regressed against time the nest was active, won't work — there's just too much rot, seed predation, sprouting, rolling away, etc. that can affect the count. I still think it's worth a try — perhaps next year in the dry season? I counted seeds (in an unmeasured ^{~1/2m²} area) under R-2 yesterday and found 20 white 3-sided seeds (the most common under nests), one oblong brown seed (2nd most common), & 310 shiny black Euphorbiacea seeds that may have just fallen in the area. The majority of plants in that area are Euphorbiacea.

↑ which fits with BAC that I saw earlier.

In the evening we met Bill Dawson, owner (?) of Crocodile Bay Lodge on Golfo Dulce. He encouraged us to use his name & connections to figure out how to best

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[11 May cont.]

see Corcovado National Park, which is very near his ritzy lodge.

Katie saw a copulation at WEL3! But didn't get bands or a time.

12 May 2001

We did watches and set nets at WEL4₃ today. It poured in the afternoon (can you tell I had my field notes with me?) as we were setting up nets — on the order of 1½" of rain in 15-20 minutes. The rainy season has been late this year, but now it's definitely here. We finished the watches + had most nets set by the time the rain started.

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

14 May 2001

We went in to David with Franky, & came back in a driving rain — not exactly the best conditions for riding in the back of a speeding pickup truck. I received \$700 from STRI (after some trouble binding the packages at the post office). Eileen informs me that I got \$1000 from ABS, & another email informed me of a '\$200 grad assembly conference grant. Horray!' Spectacled Owl along S. trail this morning.

15 May 2001

I checked nests & netted at WEL in the morning, then whiled away the rainy afternoon. Nothing much was accomplished.

16 May 2001

We took stuffs netting at WEL 3 & 4 today — Katie did 2 watches in the morning, & Eric did 2 in the afternoon. Eventually we caught a DM who MAY be the unb DM at WEL 4. We will see tomorrow. No rain.

DuVal
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá
18 May 2001

Today Frank cleared Second Landing. Dance perch and all. He left our blue & striped flags standing on their sticks, surrounded by nothing. It was such a beautiful spot, too. WVB's tree, where she nested for two years in a row, was cut down. Everything was, really. I need to see if we can get Frank to give me a little warning, so I can at least take ~~to~~ before & after pictures. Luckily the birds don't seem to care so much. The same territorial males shifted over a few meters & were dancing for a female during Eric's watch. It's so depressing, though. The clearing goes all the way to the far rancho, as well. Big hunks of forest that I never explored, gone. We suddenly have four nests with chicks to stake. I got the female's bands on one of them, but we've got our work cut out for us.

DuVal
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[18 May cont] It rained last night and the birds were pretty active overall. I even saw action at TCJ 2, for once!

19 May 2001

We did watches as usual, + I finally saw some good evidence of dominance at CCL - copulation by WBR! Unfortunately I didn't see his partner's birds, though I'm nearly positive that it was ABA. They flew from QRing to the dance perch, + it seems unlikely that there was time to swap males, or the inclination to do it without a fight.

Eric is sick. It started threatening rain at 3:30, + when I threw in the towel at 3:45, he was already asleep. The ♀ of E-28 is BW - + seems to be all green, which would make her BWY. The females of the other two nests with chicks still elude us.

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

21 May 2001

Last night ~~the~~ rain filled our rain gauge to overflowing. Katie and I netted at cascada this morning, with an attentive audience of construction workers - Claus's house is being built right by the lake. The third bird of the day was an unbanded TC ♀ whose left wing was injured in the net. She was unable to fold the primaries in properly, and unable to fly.

So, after a little soul-searching, I euthanized her. My first attempt at thoracic compression. It works. Miserable day. She had an egg inside & more on the way - her ovaries were well-developed, & one large egg was more developed than the rest, in addition to the egg passing through her system.

Eric found a nest with one chick out in Mangrove - as of yet no bands ^{seen} on the female for sure.

Hopefully the chick will still be alive tomorrow and we can stake it.

Eric is still sick, but won't admit it. E-AQ unexpectedly has two eggs in it. Hooray! Still

DuVal
EH.

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

21 May cont

Very much the breeding season.

22 May 2001

We continued to run nets at ~~the~~ CAS, but only caught two birds all morning (+ one escaped). The wind picked up at 9:00 am and stayed strong all the rest of the morning, making mist-netting next to impossible.

In the afternoon Katie + I took turns staking R-8, but on my watch the chick was gone + BPV was mobbing me with all her heart. Either the chick was just eaten, or had fledged in the last few hours + she was defending it. Got her bands, anyway, + Eric took blood from the chick yesterday.

Eric took his weekly day off + went into David for email access, but hasn't yet returned (as of 11:15 pm).

I found a record 7 nests today (2 technically on John's land).

DuVal
EH
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

23 May 2001

It was raining in the morning so we got a late start. 3 watches each, nonetheless, for Eric & myself, & 2 plus nest work for Katie. She leaves early tomorrow morning to head to a wedding in CA for the weekend. Eric did return from his unexpectedly long trip this morning - he got waylaid in Boce Chica.

24 May 2001

I saw a Greater Grison today! I was just starting a watch at Bridge when I heard a rustle. I thought nothing of it at first, & then saw a large mustelid descending from the opposite stream bank. He had a black face & legs, a grizzled grey back & tail, and a yellowish-white stripe across his forehead extending back to the shoulders. He waded into the water & drank, then climbed up onto the West bank & slowly wandered^{to} about three feet of where I was sitting. He kept stopping to sniff the air, but I seemed to be downwind. Then, as he passed ~~to~~ the North he caught my scent, started, & ran back across the

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

24 May cont

Stream in the direction from which he had come. That's the first grison I've ever seen!

Then ARA slow-flighted for a ♀, & later ARA & BOW both danced for a female. Still no copulations seen at BRL. But ARA "leaked" 14 times (~ every 30 seconds) during the dance. At the end, the ♀ took off - & so did BOW. Could they have just gone somewhere else? Maybe the female ~~does~~ choose between the males of a pair? ARA slow-flighted hopefully for another minute.

Otherwise, the day was a slow one. Even SBE1 was slow.

25 May 2001

I leave tomorrow for a nearly-week-long vacation, so I've been arranging & re-arranging the schedule for Eric, who will be holding down the fort for us. Today was a red-letter one because I checked nest E-31 and, through flushing the female & later stalking the nest, I eventually figured out that the female was VVB, #37: the only ^{undep} bird I don't have blood from, & the mom of the dead-in-the-nest R-2 chicks. I immediately

DuVal,
E. H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá

[25 May cont] Set 2 6-meter nets right at the nest, & caught her within 40 minutes. WHEW! I hope it doesn't cause her to abandon THESE chicks, but it was a risk I was willing to take at this point. That means her E-9 from last year + R-2 from this year now enter the pool of real genetic data points. And... potentially three nests from the same female! A good test of partner fidelity, especially if we find her nest again next year. E-31 is only about 10 feet from R-2. Enx did a record 5 watches today (4 2-hours + 1 1-hour). Wow. I couldn't take it.

D. Val,
E. H.
2001

Journal

Panama City to Isla Boca Brava, Chiriquí Prov., Panamá
21 November 2001

Paula White and I woke at 4:00 am (slightly later - we couldn't hear our alarms over the rain outside our flophouse hotel. We took a taxi (\$1.50) from the Hotel Turístico Volcan to Albrook bus terminal, & bought two tickets to Horconcito (\$9.60 each) on the 6:15 bus. Six hours later, Carlos ("Cambute") picked us up in his taxi from the Interamericano & took us to the Boca Chica crossroads. We waited there a while, and I went back to the park to explore for a taxidriver with a pickup (Carlos's taxi makes me carsick) who would go to Boca Chica for \$12. After sitting on the porch of a house near the park for some time, I wandered back toward Paula & was passed by Claus and Mechtildt, who gave us a ride. It was their first day back to Boca Brava and their half-finished house and half-finished boat, so it was quite a big homecoming all around. It started pouring soon after we got our things to Rancho 1, so we settled in, had a good dinner, & sat with the locals until 9:30 or so.

22 November 2001

We got a late start this morning but toured the study site and got some good glimpses of manakin behavior before rain forced us home at 3:00ish.

DuVal,
E.H.
2001

Journal

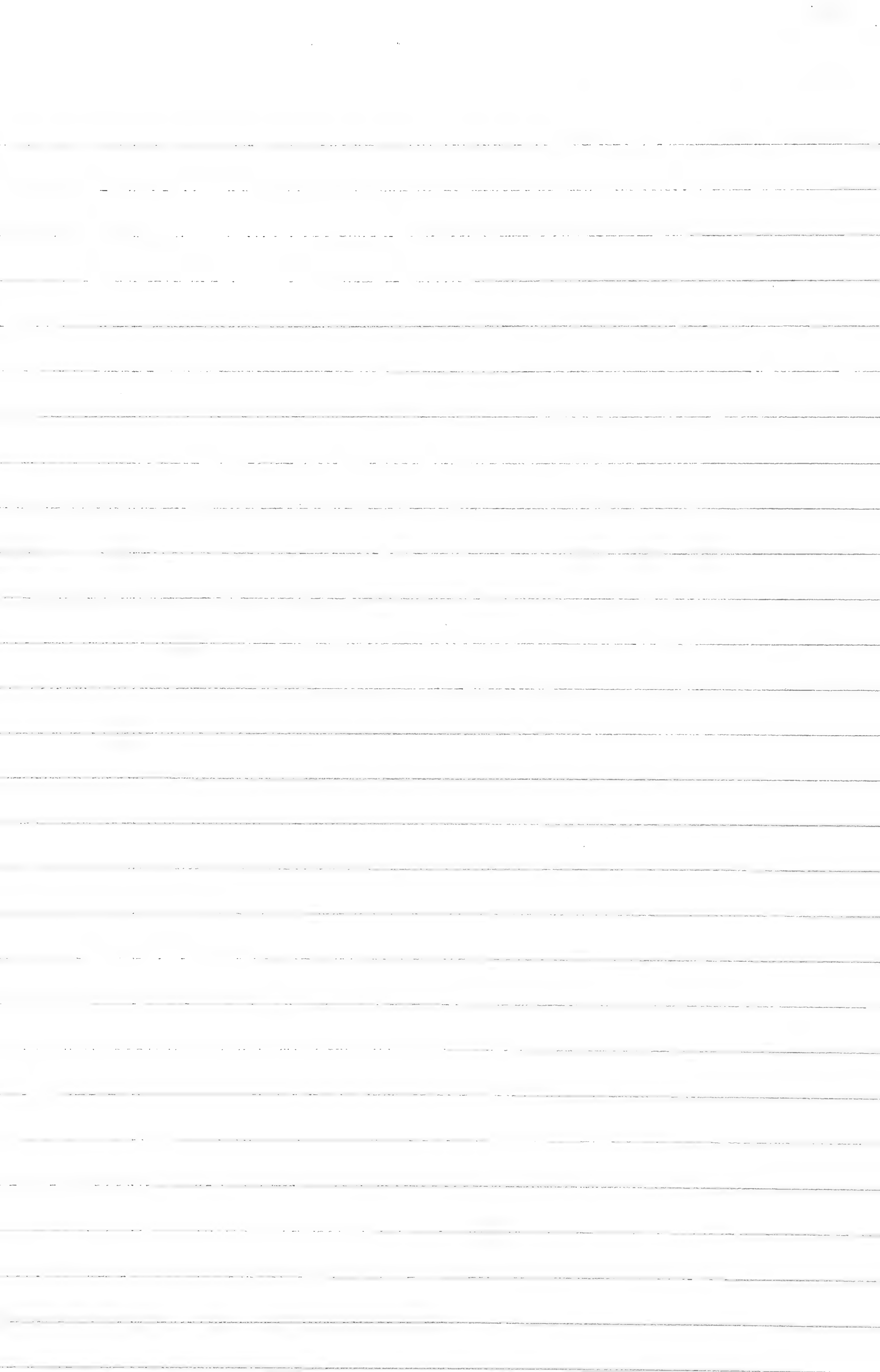
Isla Boca Brava, Chiriquí Prov. Panamá
23 November 2001

I saw ARW (DM) near CCL 3,
while 2 bDMs (one = -B- (DM)) did SF-2
& T↓ for a ♀, ^{who was} not on the dp. ARW was
just in the area, not necessarily displaying.
GBN (CB) - may have been BGN (CB) - ^{apparently} danced
with a (DM) -A- in the forest just
South of the crossroads to 2nd Beach. I
didn't see the dancing, but saw both males
leave the area. So chicks banded
in the nest in 2000 will be CBs
for the 2002 season. Good to know!
So it's: end of 1st year - slightly BF
 end of 2nd yr - CB

So third year = DM? Is this faster than
the plumage phases for the long-taileds?

Watches today: EHD = BRI 2, FBE 1/2, BTR 3
PAW = ACA, SBE, EDM.

The camera was running at CCL 1 again.



DuVal,
E. H.

Journal

2001

Isla Boca Brava, Chiriquí Prov., Panamá

24 November 2001

It was a drizzly morning. We hiked out to BTR and then did band-reading practice - bands hung in a sapling in known combos. Paula says it helped considerably, & recommended that I do that at the beginning & then regularly throughout the season with assistants. The training section of this in general could be a little more vigorous. We did watches in the afternoon. EHD at EDM & AEA; PAW at BTR & BRI.

DuVal,
E.H.

Journal

2001

Isla Boca Brava, Chiriquí Prov., Panamá

25 November 2001

Watchers today: PAW: SBE, EDM, ACA

EHD: CCL, BTR, BRI

There was a good amount of activity this morning - it seems that manakins are more active early in the day during the rainy season. I saw WBR and AB(A) dancing for a female (on the dance perch) at CCL 1 (the old CCL 3, across the gully). AB did the swoop display, but it wasn't clear that WBR had left the dp. I'm not sure that this is a dominance indicator, but it's interesting because α 's have done the swoop in the past, & I remembered WBR as α at this site. Perhaps roles are reversed, or perhaps I had it wrong & ABA is the α ?

I started thinking seriously today about hiring a field crew manager.

Maybe Katie? Frank says he will rent me two ranchos for \$15 a night, together, if I want four people here this year. It could probably be worth it.

^{is}
⁵⁰
⁴⁵ \$450/mo - just like paying ^{Berkeley} rent!

Little hermits are still displaying in the CCL area. They started last June!

DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov, Panamá
26 November 2001

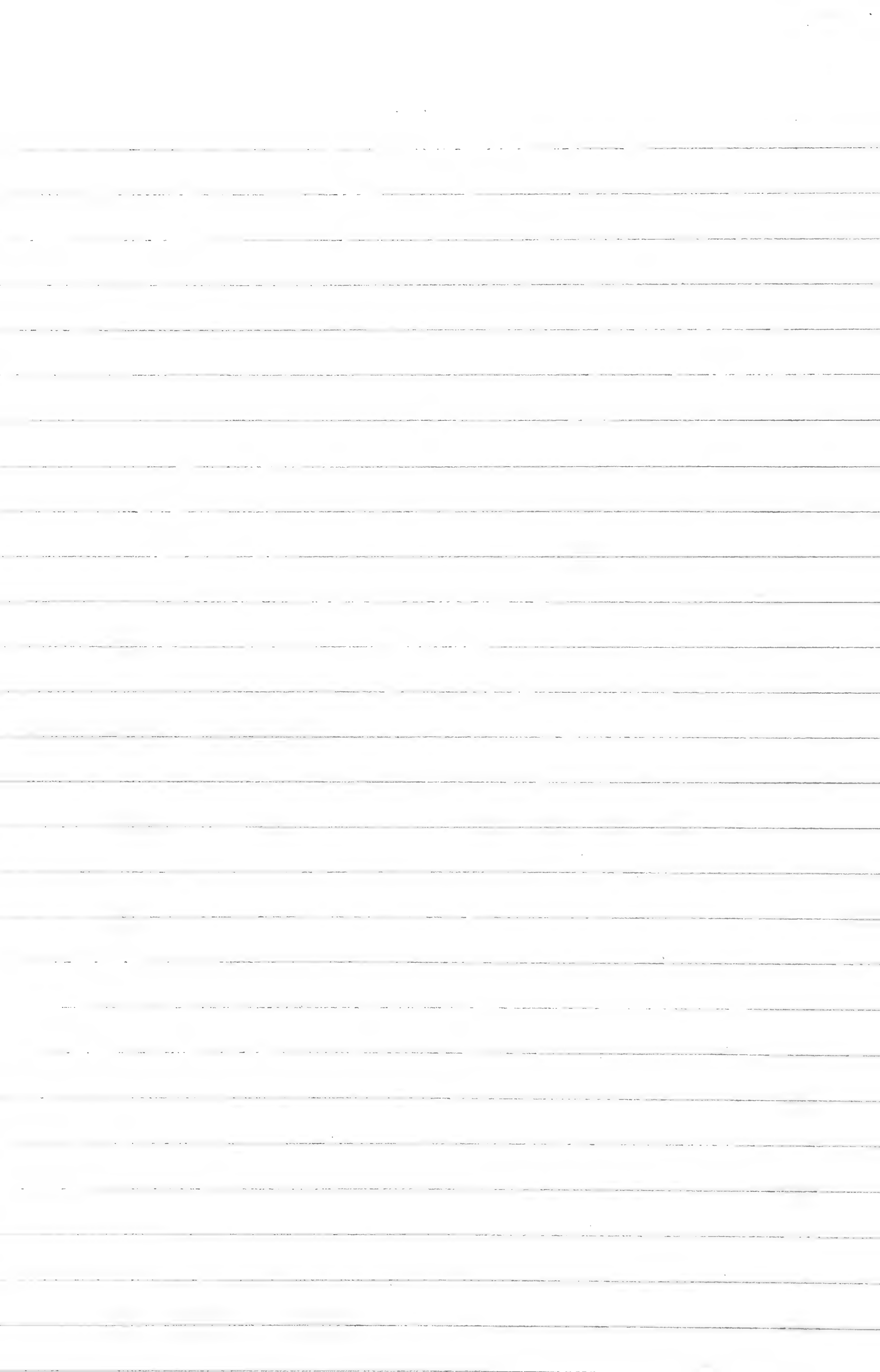
targeting the old CCL3 & the
little hermit let area

We netted at CCL1 all morning and caught two CB's - PGY and BRW. We also caught ~~four~~ ^{sapphire} hummingbirds: three rufous-tailed, & one ~~blue~~ -throated. German tourists/birders Karin and Horst Dillard (?) joined us to watch the whole production, and I let them each release a hummingbird. They were intelligent, interested folks who kept exclaiming to the other Germans (Claus, Mechthild, & Frank) about how interesting these birds were. The local Germans looked less impressed, but then they've seen it all before.

Paula and I did watches later in the afternoon - me at SBE1 and EDM, & Paula at BRI and CCL.

AWP was QRing with someone who was not ARP at SBE3 - Perhaps ARP did die after being injured in a mistnet last June. AYY and RWR both seemed to ^{have} disappeared from SBE1. In fact, AWP was expanding his area toward SBE1b. What if partnerships are so tight that a β loses the perch entirely if the α is gone?

Meghan sent a note - says she sent her few observations to me during an anthrax scare and didn't make copies. She may come & visit before we leave.



DuVal,
E.H.
2001

Journal

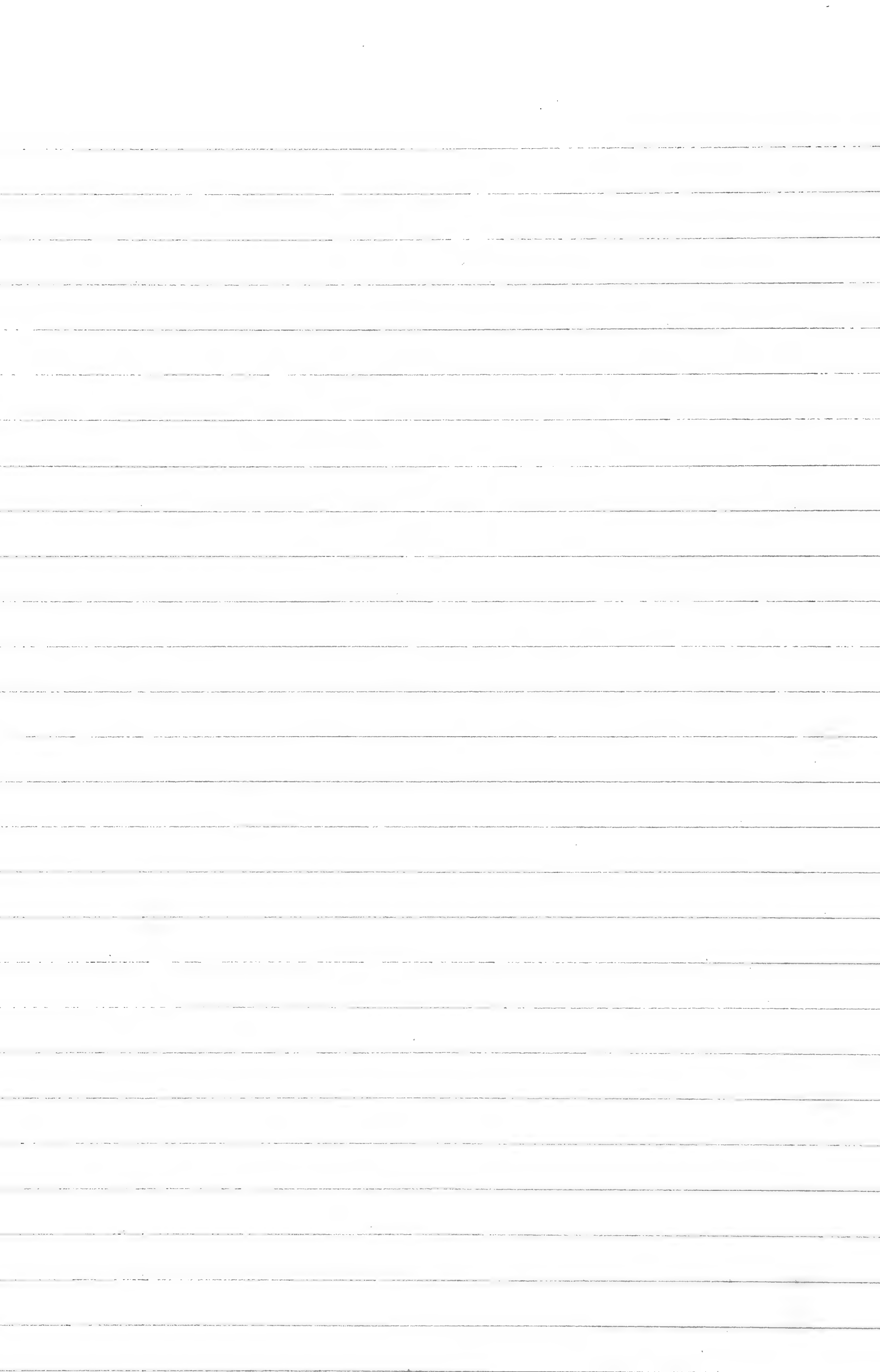
Isla Boca Brava, Chiriquí Prov., Panamá
27 November 2001

Paula and I set off early to open the nets at CCL1. We ran them from 7:30 - 11:30 and ^{DMs present & singing: WBR + ABA} caught absolutely nothing. Meanwhile, I've been getting progressively sicker and am now suffering a full-blown headache. I talked with Celideth de Leon (formerly Mendoza) on the phone after lunch and she said that the permits are in order for netting at the Metropolitan Park and Rodman military base, with the exception that we are not allowed to work on the top of the hill or along the road leading to it — prime LTM territory, I'm told, but I'm sure we can work around it. Now I just have to talk with Alberto and ask him to pick up the permits. Perhaps he, Paula, and I can go out to dinner on Friday and plan the week's work? Only two more days left on Boca Brava, then.

In the afternoon we did a watch each, after setting nets at SBE 3, 1, and near the crossroads. Perhaps tomorrow we'll have better luck...

Paula thinks she saw ABA eek & WBR sit on the perch during a post-QR dance bout, but she wasn't sure.

unb. DM QR w/ PYB (DM) at SLN1.



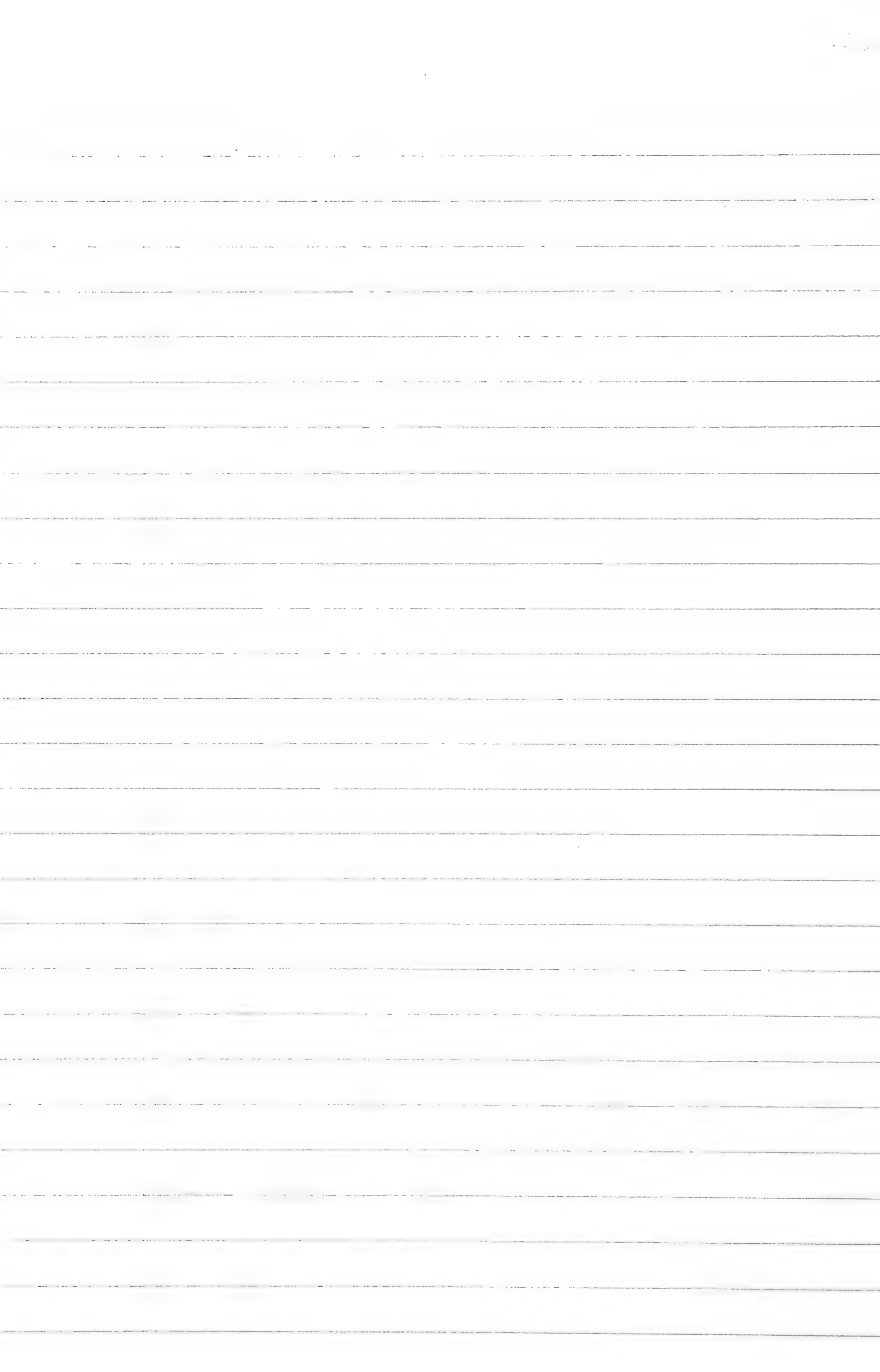
DuVal,
E. H.
2001

Journal.

Isla Boca Brava, Chiriquí Prov., Panamá

Nov. cont

It seems that the males are indeed
still displaying for females



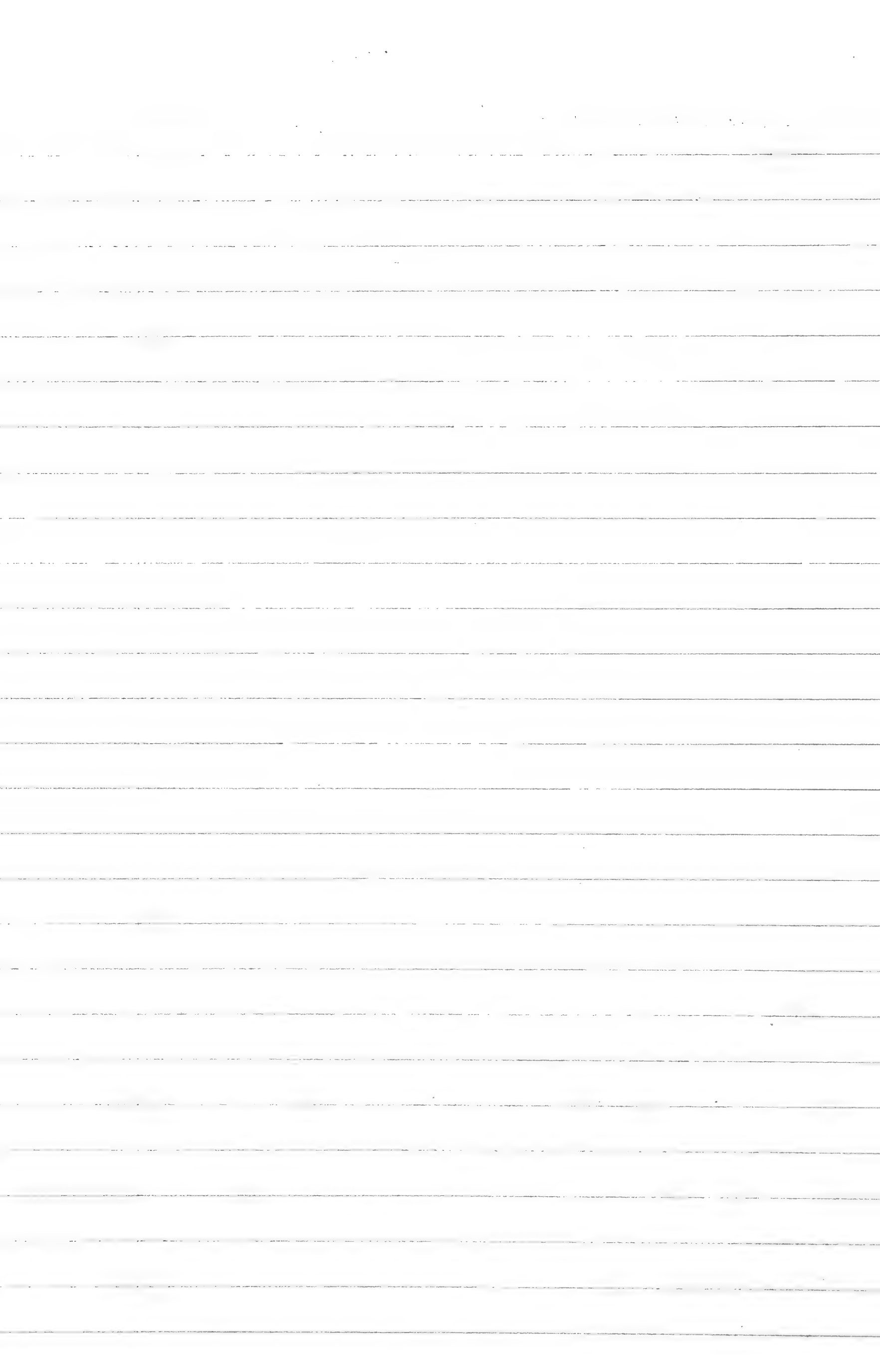
DuVal,
E.H.
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá
30 November 2001

Important note: Yesterday Paula White saw a collared forest falcon at Acacia. It was perched & flushed in front of her to another perch. It matched the description (short, broad wings, etc) in the book as well as the picture, & she had a fairly good look at it. She says it crashed fairly noisily through the undergrowth. It flew from the area where we sit for ACA watches north toward SPY, and stayed within 6' of the ground. This is the first sighting of one of these on the field site - a definite manakin predator. Manakins were in the area, as were many other birds. When the falcon went through, something alarm called and all birds in the area fell silent. Paula describes even a black-chested jay sitting very quietly in a palm, "peeking out." At least three manakins were in the area.

Today we left Boca Brava at 8:00. Before we left, I saw an unb RC, EDM, & Blue-crowned MotMot in the tree by Amelia's house. The birds were QRing at EDM, but Paula discouraged me from pursuing them, & they stopped before I could work up my resolve. (& they



DuVal,
E.H.

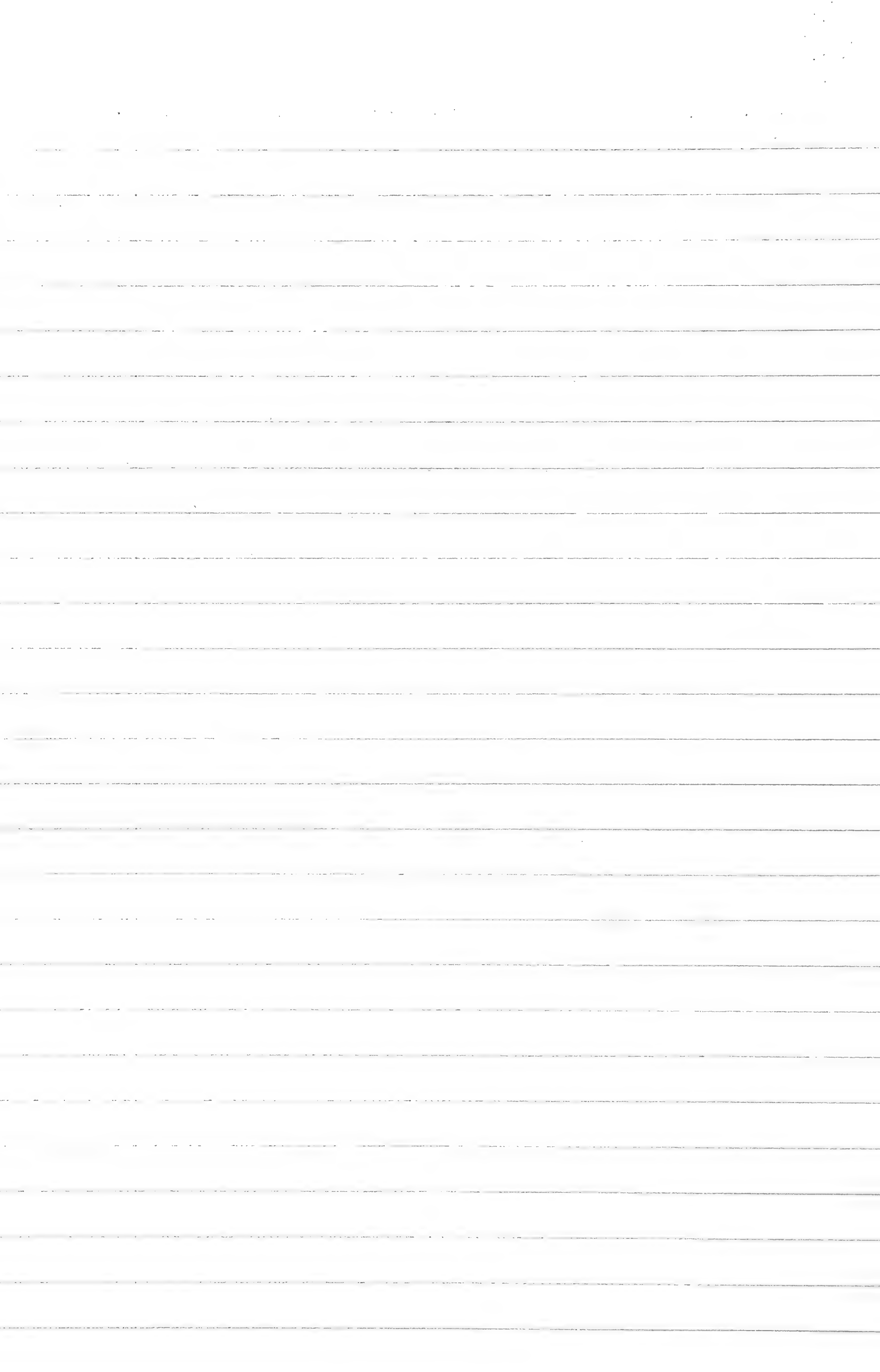
2001

Journal

Isla Boca Brava, Chiriquí Prov., Panamá to Panama City
30 Nov., cont.

resumed later, but by then we had to leave. The bill for Boca Brava was \$178.25, plus \$15 to Pollo for the taxi, and \$20 return bus fare.

In Panama City we did laundry (when!) and went out to dinner on Via Argentina with Alberto Castillo and Debbie —, his partner. Alberto will be netting with us tomorrow morning at the Metropolitan Park.



DoVal,

E.H.

2001

Journal

Parque Nacional Metropolitano, Panama Prov., Panama

1 December 2001

Paula and I met Alberto Castillo and his partner Debbie Buehler at the Parque Nacional Metropolitano to begin getting for manakins.

Alberto showed us an area near the canopy crane where he had seen displays in a previous year.

Replaying two recordings of lance-tailed manakins (made by George Angehr and including pip, dw, tr, & wah) called in several birds that responded with dw's but stayed high in the trees.

We drove back to the main office & checked the trail on which I saw dancing red-capped lance-tails^(RC) last spring (2001), but we heard no LTMA sounds at all.

